

1 MR. TARASI: This is referring to only
2 treating doctors.

3 A. Right, I understand. I don't believe so.

4 BY MR. FLOUNLACKER:

5 Q. Did you ever investigate on your own -- again,
6 aside from what your lawyers told you -- have you
7 ever investigated on your own through a health
8 care provider whether or not any of your problems
9 that you told me about were related to the time
10 that you lived at the Mount Gretna property?

11 A. I don't understand.

12 Q. Did you ever investigate that on your own, go to a
13 doctor and try to figure out what was the matter
14 with you basing it on the idea you thought it
15 stemmed from the time that you lived at Mount
16 Gretna, did you ever do anything like that?

17 A. I didn't know to.

18 Q. When was the first time that you believe you -- or
19 when was the first time it occurred to you or you
20 believe that the problems you told me about were
21 related to the time that you lived at Mount
22 Gretna?

23 A. We had already moved back to Missouri and I
24 personally noticed that I wasn't having my
25 headaches and that my hair was gradually not

1 separated?

2 A. Yes.

3 Q. When was that?

4 A. I believe in January.

5 Q. Of 2000?

6 A. Yes.

7 Q. And how long were they separated?

8 A. My dad had come back a couple of times here and
9 there because my parents were trying to work
10 through things and he finally came back to stay I
11 believe it was right after my 16th birthday which
12 would have been shortly after May 5th.

13 Q. So, he was gone most of four months or the best
14 part of four months?

15 A. Correct.

16 Q. Did you think the problems with your parents and
17 the problems that your parents were having in
18 their separation played any role in any of the
19 problems that you told me about earlier that you
20 were experiencing?

21 A. My health problems?

22 Q. Yeah.

23 A. No.

24 Q. And that separation of your parents and your
25 father leaving the house did not have an adverse

1 Q. Did you discuss the home inspection with your
2 parents?

3 A. No.

4 Q. Have you ever reviewed or discussed the home
5 inspector's inspection report concerning the Mount
6 Gretna property with your parents or anyone else?

7 A. No.

8 Q. You are a smoker?

9 A. Yes.

10 Q. When did you begin smoking?

11 A. February of this year.

12 Q. What do you smoke?

13 A. Marlboro menthol.

14 Q. Menthols?

15 A. Yes.

16 Q. And about how much do you smoke?

17 A. Roughly eight to ten cigarettes a day.

18 MR. FLOUNLACKER: Stop now.

19 A. I plan on it.

20 BY MS. MURPHY:

21 Q. Did you ever note any dampness or musty odors in
22 the basement prior to the summer of 2000?

23 A. I honestly don't remember.

24 Q. Did you ever note any water in the basement after
25 periods of rain prior to the summer of 2000?

EXHIBIT “G”

IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF PENNSYLVANIA

JACK MARRONE, husband,
KAREN MARRONE, wife, both
individually and in their
capacity as parents and
guardians for VIDA MARRONE
a minor, and MATTHEW ADAM
MARRONE,

Plaintiffs

vs.

ALLSTATE INSURANCE COMPANY,
LINDA M. EDLEMAN, FRED
SCHAFFER, MT. GRETNA REALTY,
and HOUSEMASTERS,

Defendants

Civil Action No.:
1:CV-01-0773

(U.S. District Judge
Yvette Kane)

Jury Trial Demanded

Deposition of: CHARLES E. BERTHOUD, JR.

Taken by : Plaintiffs

Date : June 6, 2002, 9:24 a.m.

Place : Nealon & Gover
2411 North Front Street
Harrisburg, Pennsylvania

Before : Ann M. Wetmore
Reporter - Notary Public
Joe Vengoechea
Video Operator

1 A. Mostly hydrocarbons, technically TCE, TCA
2 underground, hazardous chemicals in the ground
3 water, in the soil.

4 Q. Okay. So, that takes you up to 1994. Is that
5 right?

6 A. Yes, sir.

7 Q. What did you do then?

8 A. I worked for HouseMaster. I bought the franchise.

9 Q. Now, HouseMaster, is that a national organization
10 which franchises local areas?

11 A. That's correct, independently owned and operated.

12 Q. All right. So, HouseMaster is -- you franchise
13 from them?

14 A. Yes, I do.

15 Q. And do you have a corporation?

16 A. Yes, I do. I'm an S corporation.

17 Q. What's it called?

18 A. CNB Property Evaluations, Inc.

19 Q. Now, did you form that corporation in 1994?

20 A. Yes, sir, I did.

21 Q. And then you took the franchise from HouseMaster?

22 A. Yes.

23 Q. But you go by the name in your business of
24 HouseMaster?

25 A. Yes, I do, doing business as.

1 Q. Okay. What does the franchise agreement require
2 you to do or what is the franchise all about,
3 HouseMaster franchise?

4 A. I have a license to work exclusively in
5 Cumberland, Dauphin, Lebanon, Lancaster Counties.

6 Q. Now, when you say a license, a license for what?

7 A. To perform home inspections and some related
8 services.

9 Q. Home inspections for what purpose, what do you
10 inspect when you do a home inspection?

11 A. We do a -- a full house inspection is basically an
12 evaluation of the -- generally it's a prepurchase
13 inspection of a home for a buyer who is interested
14 in the condition of the roof, the heating,
15 cooling, electric, plumbing, foundation,
16 structure, water penetration.

17 Q. Now, you say you do this work for buyers. Do you
18 also do it for banks and mortgage companies?

19 A. Indirectly.

20 Q. When you do these inspections, do you give the
21 inspection reports to banks and mortgage
22 companies?

23 A. If requested.

24 Q. Do you know whether or not in your practice that
25 you've had banks and mortgage companies that

1 Q. Now, Exhibit 4 is on the back.

2 A. Yes, it's a complete copy there.

3 Q. Let me show you Exhibit Number 4 and ask if you
4 recognize that document?

5 A. Yes, I do recognize it.

6 Q. Now, Exhibit 4 is a document specifically
7 referring to the people involved in this lawsuit
8 of which you are a defendant, HouseMaster is.
9 Correct?

10 A. Correct.

11 Q. That's Jack and Karen Marrone that's at the top,
12 isn't it?

13 A. Yes.

14 Q. And the property involved which is involved in
15 this lawsuit is 354 Timber Road, Mount Gretna,
16 Pennsylvania 17064. Correct?

17 A. Yes.

18 Q. Now, you did this inspection for \$95. Right?

19 A. The total is \$195.

20 Q. Oh, I see that, you're right, total inspection fee
21 195. Now, on the contract acknowledgment I know
22 that it says it's only been signed by Karen A.
23 Marrone. Is that right?

24 A. That's correct.

25 Q. It's dated 30 July '99. It's again signed Karen

1 Q. Oh.

2 A. No, that's blank.

3 Q. That's what I wondered about that.

4 A. Yeah.

5 Q. That's blank and the third page notes some things
6 and we'll go through that. You say the amount
7 paid is \$195 and you marked that 8/11/99. And it
8 says inspector and you crossed out Mike Tuscan who
9 we just discussed because you did the inspection?

10 A. I did.

11 Q. And I mean you did it personally. Right?

12 A. Yes, I did.

13 Q. And you got there at 1 p.m. Correct?

14 A. That's right.

15 Q. And who let you in was the owner?

16 A. Yes.

17 Q. And did you know the owner was Linda Edleman?

18 A. Yes, I did because I have her name and phone
19 number.

20 Q. All right.

21 A. Prior to going to the house.

22 Q. Okay. And it said it was -- you marked closed
23 house. Correct?

24 A. That's correct.

25 Q. And you have also you have checks here. You

1 checked radon and you have checked structure.

2 Correct?

3 A. That's correct.

4 Q. And you also put foundation. Right?

5 A. Yes.

6 Q. So, those are things you were inspecting?

7 A. Yes, I was.

8 Q. And it says attendees or the buyer, you have that

9 marked, and you have -- or do you have it marked?

10 Is the buyer marked or not?

11 A. The buyer is correct.

12 Q. And the owner also?

13 A. And the owner is marked, yes.

14 Q. So, the owner was also present during the

15 inspection?

16 A. Yes, she was.

17 Q. And it says the buyers, Jack and Karen Marrone,

18 okay?

19 A. Yes.

20 Q. And it says punch, what's that?

21 A. Their address is Pinch Road.

22 Q. Pinch Road?

23 A. Camp Ground Site 15.

24 Q. Send reports to BA, is that--

25 A. Buyer's agent, yeah. That would be right below it

1 A. Doing the math, yes.

2 Q. All right. Your telephone is 533-5955, is that
3 your phone?

4 A. Yes.

5 Q. And that's your name, Chuck Berthoud?

6 A. Yes.

7 Q. Berthoud. And inspection details, the client is
8 Jack and Karen Marrone and the report number is
9 99585?

10 A. Yes.

11 Q. And you have marked structural and wet basement;
12 radon. That was your inspections?

13 A. Yes.

14 Q. The date was 7/30/99, the time was 1 p.m.?

15 A. Yes.

16 Q. And the place was occupied?

17 A. Yes.

18 Q. You put down the weather is sunny, approximate
19 temperature 90 degrees. Was it a high hot day
20 then?

21 A. Most likely.

22 Q. And the clients were there, which would be Jack
23 and Karen Marrone?

24 A. That's correct.

25 Q. The owners, which would be Linda Edleman?

1 A. Yes.

2 Q. Now, was she by herself? The reason I ask is you
3 have the word owners down there, plural. Was it
4 one owner or how many owners?

5 A. Yeah. I didn't realize -- I guess when I filled
6 this out I didn't realize she was by herself.

7 Q. All right. But she was there?

8 A. She was there. There was apparently a number of
9 people in the house.

10 Q. But she was one of them?

11 A. She was one of them and identified that there was
12 an owner in the house.

13 Q. And the Chip Stanilla, he was there, the agent for
14 the buyer?

15 A. Yes.

16 Q. I have a hard time reading this thing.

17 A. Yeah, I'm sorry about that.

18 Q. Okay, we're going to go over that page which is
19 the second page I can't make out. Now, the third
20 page is a page that you wrote on. Is that
21 correct, Mr. Berthoud?

22 A. Yes, it is.

23 Q. And at the top -- these are all your notes I
24 understand?

25 A. And my handwriting.

1 Stanilla, was actually present at the time of your
2 inspection?

3 A. The Marrones' agent, yes.

4 Q. Yes, okay. You had mentioned a few times in
5 response to Attorney Tarasi that you had provided
6 a partial inspection rather than a full
7 inspection. Why was that the case?

8 A. Because they ordered a structural evaluation prior
9 to the inspection date and the radon inspection.

10 Q. Would a fuller, more complete inspection, would
11 that have costed more?

12 A. Yes, it would have.

13 Q. Is it the prospective buyer's option as to the
14 scope of the inspection that they would get from
15 your company?

16 A. Yes.

17 Q. Do you know why they had a structural evaluation
18 as opposed to other components of the home?

19 A. I do not.

20 Q. When you give the Marrones the express report,
21 would you have discussions with them about what's
22 in the report?

23 A. Yes, I would.

24 Q. Do you recall any of the specifics of your
25 discussions--

EXHIBIT “H”

IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF PENNSYLVANIA

JACK MARRONE, husband,
KAREN MARRONE, wife, both
individually and in their
capacity as parents and
guardians for VIDA MARRONE
a minor, and MATTHEW ADAM
MARRONE,

Plaintiffs

vs.

ALLSTATE INSURANCE COMPANY,
LINDA M. EDLEMAN, FRED
SHAFFER, MT. GRETNAL REALTY,
and HOUSEMASTERS,

Defendants

Civil Action No.:
1:CV-01-0773

(U.S. District Judge
Yvette Kane)

Videotaped

Deposition of: LARRY MILLER

Taken by : Plaintiffs

Date : June 28, 2002, 9:16 a.m.

Place : Nealon & Gover
2411 North Front Street
Harrisburg, Pennsylvania

Before : Ann M. Wetmore
Reporter - Notary Public
Craig Ashway
Video Operator

1 Q. There isn't?

2 A. Not that I'm aware of.

3 Q. Not that you're aware of?

4 A. Not that I'm aware of.

5 Q. Is there any way for you which to check and find
6 out if there are other documents that preceded
7 this one?

8 A. Yeah, because the notice date was on 8/7 of 2000.

9 Q. Where do you get that?

10 A. (Indicating)

11 Q. We'll get to that eventually.

12 A. Okay.

13 Q. Okay. Now we are on Page 1?

14 A. Okay.

15 Q. And at the top of that page it says -- and by the
16 way, that's dated 8/7/2000. Right? This document
17 is dated 8/7/2000?

18 A. Yes.

19 MR. NEALON: The entry is 8/7/2000. It was
20 printed out 6/7/01 after the lawsuit was filed.

21 BY MR. TARASI:

22 Q. The date of the entry is 8/7/2000. Correct, sir?

23 A. Yes, um-hum. Yes, sir.

24 Q. Regardless of when it was printed out, the date of
25 the entry is 8/7/2000. Right?

1 A. Yes.

2 Q. And it says bumped up claim level per insured is
3 older. What's that mean?

4 A. I have no idea. I didn't put it in.

5 Q. What do you mean you put it in?

6 A. I did not put it in.

7 Q. Oh, you did not? There is mold. Is that what it
8 says?

9 A. Yes.

10 Q. And then A-L-L over the basement. What's L-L
11 mean?

12 A. All over the basement.

13 Q. Oh, so that's all broken down?

14 A. Yes.

15 Q. All over the basement, okay. Now let's turn the
16 page. It says here on Number 2 that 8/7/2000
17 notice record established 5:47 eastern daylight
18 time. Is that what it says?

19 MR. McNALLY: 15:47.

20 A. 15:47.

21 BY MR. TARASI:

22 Q. 15:47, which is?

23 A. 3:47.

24 Q. Yeah. It's military time. Right?

25 A. Yes.

1 Q. And loss report taken by ID JJR7R desk H14. What
2 does that mean?

3 A. That's the desk location. That's their--

4 Q. All right.

5 A. And then they have the name as Alisha Parker.

6 Q. So, she's the one that took it in. Right?

7 A. Yes, sir.

8 Q. So, this would be from your records the first
9 notice of this loss of 7/11/2000?

10 A. 8/7, yes.

11 Q. Now, it says under 1B cause unknown. Does it say
12 that?

13 A. 1B? Where are you at now?

14 Q. I'm on Page 2.

15 MR. NEALON: Down here. (Indicating)

16 BY MR. TARASI:

17 Q. What's it say there?

18 A. Okay, cause unknown.

19 Q. Cause unknown?

20 A. Yes.

21 Q. Now, where would they get that information, from
22 the insured?

23 A. From questions they asked this insured, yes.

24 Q. Which would be Mr. Marrone or somebody from his
25 family?

1 A. Yes.

2 Q. Is that you?

3 A. Yes, it is.

4 Q. Is that when you got that assignment?

5 A. Yes, it is.

6 Q. So that would be 8/8/2000?

7 A. Yes, sir.

8 Q. All right, now we're at Number 6. Now, it has
9 here home phone 717 964-2316. Is that the phone
10 number of the insured?

11 A. It should be, yes.

12 Q. And then it has statement EMPL name, what's that?
13 STMT, is that statement, or do you know what
14 that--

15 A. Yeah, this is a statement by the employee, Lauren
16 Hittle.

17 Q. All right. Statement type it says general
18 conversation?

19 A. Yes.

20 Q. And then it says called insured at 9:30 a.m.
21 Right?

22 A. Yes.

23 Q. Water has caused damage to his basement floor and
24 ceiling. He is not sure where the problem is
25 originating, but it appears there is a pipe inside

1 the basement where the water came from. Water is
2 damp and panels are buckled. This happened almost
3 a month ago. He said he does not need emergency
4 services. I told him adjuster would be contacting
5 him to inspect and discuss coverage and damages.
6 Does it say that?

7 A. Yes, that's what it says.

8 Q. And did you receive information, this is the
9 information you got to go to their home and
10 inspect it?

11 A. This is part of the information. I would have
12 reviewed this before I went out, yes.

13 Q. All right. I note in this particular page there's
14 no mention about mold?

15 A. No.

16 Q. And you eventually went out and inspected the
17 property. Right?

18 A. Yes, I did.

19 Q. Did you find a broken pipe?

20 A. No, I did not.

21 Q. Do you take any photographs of the scene?

22 A. Yes, I did.

23 Q. Now, look at Number 7. You have that in front of
24 you?

25 A. Yes.

1 A. D AA is the coverage, structure coverage.

2 Q. Was assigned to employee Larry Miller. That's
3 you?

4 A. Yes.

5 Q. And then it says 2000/8/23 subrogation closure
6 approved by BL -- PL. What's that mean?

7 A. The manager.

8 Q. Oh, okay. Now, Number 10, the statement by the
9 employee, that's you, Larry Miller. Right?

10 A. Yes.

11 Q. And then it has here analysis, tried to call
12 insured 5:12 p.m. 8/9/2000 line busy?

13 A. That would have been my initial contact attempt.

14 Q. Your initial contact?

15 A. Yes, attempt.

16 Q. Okay.

17 A. And the line was busy.

18 Q. Okay, attempt. Okay. All right, I understand.

19 Now 11, 11 is when you did make contact. You
20 called the insured at 8/9 at 6:30 p.m.

21 Appointment is set for 1:30 p.m. 8/8 -- 8/10/2000
22 to inspect the damages. Right?

23 A. Yes, sir.

24 Q. Now 12, Page 12. Now, this document which is

25 dated 8/10/2000, the statements in there are by

1 you, Larry E. Miller?

2 A. Yes.

3 Q. And then you put under analysis, inspected the
4 insureds loss at 1:30 p.m. 8/10/88. I'm having a
5 heck of a time with these zeros marked with a
6 slash look like an 8. 8/10/2000. Right?

7 A. Yes.

8 Q. It is obvious the -- I guess this would be -- the
9 basement has a moisture problem to water seeping
10 through the block foundation. The insured has a
11 major mold and mildew problem in the basement. I
12 explained to the insured that this problem wasn't
13 a covered loss. After I explained things, the
14 insureds said that they understood. The claim is
15 a denial.

16 Did you tell them at that time that the
17 company was going to deny the claim?

18 A. Yes, I did.

19 Q. Now, you said denial letter is sent and a copy is
20 in the file. Now we'll get to that. When was the
21 denial -- well, we'll get to that later on. But
22 anyhow, according to this note you told them the
23 loss was not covered?

24 A. Yes, I did.

25 Q. And that would be 8/10/2000?

1 Q. At that point in time in your conversation or at
2 any time prior to the suit being filed, did the
3 Marrones indicate to you that they were, in fact,
4 having health problems since this mold condition
5 had been discovered?

6 A. I don't recall.

7 Q. Did they ever indicate to you why the date of loss
8 is noted as July 11th and they did not report this
9 to Allstate until August 7th?

10 A. No, I don't.

11 Q. Did they indicate to you that they had noted any
12 seepage or water accumulation in the basement
13 prior to July 11th of 2000?

14 A. No.

15 Q. Did you note that there was a hot tub in the
16 basement?

17 A. Yes, I did.

18 Q. Describe the hot tub for me as you observed it.

19 A. It was a hot tub.

20 Q. Okay.

21 A. No cover. That's the only thing I really recall
22 about it.

23 Q. Was there water in the hot tub when you observed
24 it?

25 A. Yes.

1 Q. How much water?

2 A. I don't recall how much. I imagine it was up to
3 the fill line area of it.

4 Q. Did you discuss with the Marrones the nature and
5 frequency of their use of that hot tub?

6 A. I explained that there could be a large amount of
7 condensation and moisture that comes off the hot
8 tub, yes.

9 Q. Did they indicate to you that they had experienced
10 condensation and moisture in the basement before
11 July 11th?

12 MR. TARASI: I object as asked and answered.
13 He said no.

14 MR. NEALON: You can answer.

15 BY MR. McNALLY:

16 Q. Go ahead.

17 A. I -- no.

18 Q. The documents that were introduced to you as
19 Exhibit Number 2 which came from the claims file
20 and I'm particularly interested in the claims log
21 which is the first several pages.

22 A. Okay.

23 Q. Describe for me how these documents are generated,
24 these entries are generated.

25 A. They are generated by anybody that handles the

EXHIBIT “I”

INSPECTION ORDER AGREEMENT

- PLEASE READ BOTH SIDES THOROUGHLY -

This agreement represents a binding contract between the Client, JACK KARAN MARRONE and the Company, House Ma, a local independently owned and operated business, for the inspection of the house proper located at 354 TAMBER RD HOUNS GREEN PA 17064

INSPECTION OPTIONS

1. Client is ordering a standard home inspection of the house noted above. The cost for this limited time/scope inspection, with a complimentary Guarantee (see section 2 below), is: \$ 95.
2. Client is ordering the following related/partial inspection services (note service numbers as listed on reverse): 25

The cost of these services is: \$ 100

Total inspection fee is: \$ 195

3. An extended time/scope inspection is available for clients preferring additional assurances regarding the condition of the house. Such an inspection must be prearranged due to the increased inspection time demands and the possible need for specialists to complete certain aspects of the inspection. If interested, contact the Company for information on fees, order agreements and scheduling requirements.

TERMS AND CONDITIONS

1. INSPECTION LIMITATIONS. The Company can only inspect and report on specified, visible and accessible elements of the house proper. The Inspection is not intended to detect latent conditions or concealed defects. It will be performed according to recognized industry standards - a copy is available upon request. The Inspection will not involve destructive testing and will not include code compliance, geological/soil investigation, engineering design/diagnosis, adequacy evaluation or related services listed on the reverse side. Any related services performed by the Company are subject to the terms and conditions of this agreement but are not covered by any guarantee.

2. NINETY DAY GUARANTEE. The Company provides the Client with a complimentary limited Guarantee for a period of ninety (90) days from the Inspection Date to cover specified repair expense to covered Elements, including those incurred as a result of any alleged Inspector misjudgment, error or negligence. Under the terms of the Guarantee, the Company will reimburse the Client for repair costs, less a \$95.00 service fee, to covered Elements up to an aggregate of \$1,500.00 per Element and \$10,000.00 per Guarantee. Client should review Guarantee for specific terms and conditions.

3. FULL YEAR WARRANTY.* For an additional fee, the Company will provide the Client with an insurance backed twelve month (from closing) limited warranty. The warranty covers repair or replacement of the mechanical systems of the house; pre-existing conditions are excluded. Optional coverage for roofing, structure and/or pools/spas is also available. Check here ☐ to receive a sample warranty for review prior to purchase.

4. LIABILITY. The Inspection should not be considered a technically exhaustive inspection or an insurance policy against unexpected house repair/replacement needs. The Client acknowledges that there is risk involved in purchasing a property and that the purpose of the Inspection and the Guarantee is to reduce that risk but not eliminate it. Furthermore, the Client agrees that the performance of the Inspection does not transfer that risk to the Company beyond the Guarantee limits.

No legal action, including those alleging negligence, may be commenced against the Company after one year from the date of the Inspection.

The Company assumes no responsibility or liability for personal or bodily injury or fatalities caused by any of the property's components or conditions or their effects, regardless of the cause. The Client agrees to maintain adequate liability insurance to cover this potential liability.

The Company's liability for any Client post-inspection claims, beyond the 90 day Guarantee, is limited to a maximum of the home inspection fee paid.

* Not available in all areas.

5. ENVIRONMENTAL CONCERNS. The Client acknowledges that what is being contracted for is a home inspection and not an environmental evaluation. The inspection is not intended to detect, identify or disclose any health or environmental concerns regarding this house or property such as the presence of asbestos, radon, lead, urea-formaldehyde, fungi, or any other potentially toxic materials or gases, etc., in the air, water, soil or house materials.

6. PERMITTED EXCEPTIONS. If any stated limitation or standard is exceeded (i.e. environmental evaluation, code reference, etc.), it is done solely at the Company's option and does not void the Terms and Conditions of this contract. Furthermore, if any portion of this contract conflicts with local statutes, only those sections are amended; the balance of the contract applies as stated.

7. ORAL REPRESENTATIONS. No oral statements made by the Inspector or any other Company representative shall expand the scope of nor change the terms of this agreement or the Inspection Report. Furthermore, the written report shall be considered the inspection results and no oral representations shall alter the results or their interpretation.

8. OWNER DISCLOSURES. The Company will provide the Client with an Owner's Questionnaire to be reviewed by the Client with the present owner prior to closing of title in an effort to uncover conditions and/or peculiarities known to the present owner. Client agrees to follow-up on any incomplete forms or potentially serious or questionable areas prior to the closing of title. This questionnaire is not a substitute for any required or completed owner disclosure forms.

9. PRE-CLOSING INSPECTION. The Client will, as part of the purchase deliberation, perform a pre-closing inspection of the property, including systems and appliances. Should any previously undetected deficiency be uncovered during this pre-closing inspection, it should be reported to the Company. The Company will assess the matter by telephone and, when necessary, will promptly reinspect and evaluate the condition at the Company's expense. The cost of correcting any such deficiency will not be the responsibility of the Company.

Should the Client fail to perform a pre-closing inspection, the Company is relieved of any and all liability concerning any defects which the pre-closing inspection would have revealed.

10. CLIENT RESPONSIBILITY. Should a concern or dispute arise over the condition of an inspected element after closing of title, the Client agrees to notify the Company in writing and provide it with the opportunity to assess the element's condition prior to any repair/replacement work. Failure to provide such written notification and access for reinspection will release the Company of any and all liability concerning this Inspection or Guarantee.

Should the Client initiate legal action against the Company and such action is terminated in a manner not adverse to the Company and/or the Company is subsequently relieved of liability, the Client will be responsible for the Company's defense costs, including attorney fees and expert witness fees.

In addition, if the Client or spouse is an attorney, it is agreed and understood that any and all claims or disputes arising out of this Agreement, or the services performed or to be performed thereunder, shall be submitted for binding arbitration before a recognized arbitration association, at the Client's expense. The parties shall be bound by the arbitrator's determination and expressly waive any and all other legal remedies.

11. EXCLUSIVE USE. The Inspection and Report are performed and prepared for the sole and exclusive use of the Client. The Report is non-transferable and may not be relied upon by other parties without the expressed consent of the Client and the Inspection Company.

CONTRACT ACKNOWLEDGMENT

Client or authorized representative acknowledges that this contract (both sides) was read and its terms and conditions are understood.

Client Name: PKNOT Karen A. Marrone Date: 30 July 99

Client or Authorized Representative Signature: X Karen A. Marrone Karen A. Marrone Company Representative: CSH

ORIGINAL TO OFFICE, COPY TO CLIENT

750m14.01a-26-7

RELATED SERVICES

The following are examples of services which are NOT part of the home inspection. The Company may provide some of these additional services. Clients desiring any of these services should insert the appropriate service number(s) in the Inspection Options section on the reverse side. The Company will advise of their rates or recommend Client contact an independent specialist in the appropriate field.

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. Wood Destroying Insect Inspection 2. Wood Destroying Organism Inspection 3. Insecticide Contamination Analysis 4. Private Sewage System Inspection 5. Private Water System Inspection 6. Well Yield/Capacity Analysis 7. Water Potability (Bacteriological Only) Test 8. Water Analysis (Specified Chemicals, Toxins, etc.) 9. Underground Sewer/Water Lines Evaluation 10. Soil/Geological Analysis 11. Piling/Sub-Grade Foundation Analysis 12. Earthquake Potential Evaluation 13. Flood Potential Evaluation 14. Structural/Engineering Analysis 15. Energy Audit 16. Heat Loss/Gain Analysis 17. Home Security Evaluation 18. Fire/Safety Inspection 19. Carbon Monoxide Detection 20. Asbestos Containing Material Detection or Identification | <ol style="list-style-type: none"> 21. Urea-Formaldehyde Detection or Identification 22. Lead/Lead-in-Paint Detection or Identification 23. Electromagnetic Field (EMF) Detection 24. Radon Screening 25. Radon Monitoring 26. Indoor Air Quality Check 27. Underground Fuel Oil Tank Evaluation 28. Underground/Abandoned Tank Evaluation 29. Swimming Pool Inspection 30. Spa/Hot Tub Inspection 31. Dock/Bulkhead Inspection 32. Lawn Sprinkler Inspection 33. Code Compliance Evaluation 34. Permit/Public Record Search 35. Detached Structures Inspection 36. Wood Stove/Insert Inspection 37. Heat Exchanger Evaluation 38. Solar Equipment Inspection 39. Whirlpool/Jetted Bath Equipment Inspection 40. Sauna Inspection |
|--|---|

Client understands that all Company provided related services are performed on an "opinion only - no guarantee" basis under the terms and conditions agreed to on the reverse side, unless a separate agreement is provided, and any other conditions stated as part of the report. Furthermore, client understands that none of the above related services are technically exhaustive or all encompassing in nature. For example, radon screening provides an unsupervised preliminary reading, not longer term supervised monitoring. A water potability test determines the presence of bacteria only, not toxic elements or chemicals. A private sewage system inspection is a water usage/flow test and does not involve pumping or excavation of the tank or field. Also, many homes contain asbestos and urea-formaldehyde products in one form or another (general insulation; pipe, duct and boiler insulation; ceiling tiles and finishes; roofing; etc.); detection and/or identification of these products are not part of a home inspection.

Furthermore, Client understands and agrees that independent test reports or work products produced by anyone other than the Company are presented as a service to the Client and are the sole responsibility of the provider. The Company is not liable nor responsible for any findings, results, report delivery times, retesting or any additional fees charged beyond the fees stated herein.

INSPECTION REPORT DISTRIBUTION

The following distribution for all reports, addenda and test results is authorized by the Client:

Original to: ☐ Client ☐ Other: _____

Copy to: ☐ Real Estate Agent ☐ Attorney ☐ Other: _____

In the absence of distribution instructions above, a copy of the inspection report will be released to the Client's representative who ordered the inspection. The Company makes no representation or guarantee concerning inspection report delivery dates.

INSPECTION FEE PAYMENT PARTICULARS

The payment of the inspection fee(s) will be made by: ☒ Personal Check ☐ Cash/Money Order ☐ Credit Card

Name on Card: _____

Card Number: _____ Exp. Date: _____

EXHIBIT “J”

HouseMaster

The Home Inspection Professionals

EXPRESS REPORT

PROPERTY INFORMATION

Address: 354 TIMBER RD
MOUNT GRENA PA

Owner(s): _____

Description: ☒ Single Family ☐ Condominium

☐ Two Family ☐ Other: _____

Reported/Estimated Age: 15 ± Years

INSPECTION COMPANY

Office: 47 BROOKSIDE AVE
HERSHY PA

Telephone: 533-5955

Inspector: CHUCK BERTHOUD

INSPECTION DETAILS

Client: JACK-KAREN MARONE Report No: 99585

Type Inspection: ☐ Standard Home Inspection ☒ STRUCTURAL / WET BASEMENT ; RADON

Date: 7/30/99 Time: 1:00 Status: ☒ Occupied ☐ Vacant ☐ _____

Weather: SUNNY Approx. Temperature: 90°

People Present For Inspection: CLIENTS, OWNERS, CHIP STANILLA

PURPOSE AND SCOPE OF INSPECTION

The purpose of this report is to render an opinion as to the condition of the major inspected elements of the referenced property on the date of inspection. Report findings are based on a limited time/scope inspection performed according to Terms and Conditions of the Inspection Order Agreement and in a manner consistent with home inspection industry standards. Information contained herein was prepared for the exclusive use of the client named above.

Evaluations are basically limited to a visual assessment, are not technically exhaustive and only include installed and specified structural, mechanical and electric systems components, unless otherwise stated.

Furthermore, no engineering, geological, design, environmental, or code compliance evaluations of the property were performed. Details related to these and similar limitations and exclusions, such as those listed under GENERAL INSPECTION GUIDELINES, can be found on the reverse side of this page and in applicable industry standards.

Due to the normal and stated limitations of a home inspection, no representations or guarantees are made with respect to latent deficiencies or any future conditions. The report, including all SUPPLEMENTAL INFORMATION and any addenda, should be reviewed in its entirety.

TERMINOLOGY

The following terms are used to describe inspected element conditions in the EXPRESS REPORT:

SATISFACTORY - Functional at the time of inspection. Element condition is sufficient for its minimum required function. Element is in working or operating order with no readily visible evidence of a substantial defect.

FAIR - Functional at the time of inspection but with limitations and/or exceptions. Element exhibits an existing defect or has a high potential for a defect to develop, is near or beyond its normal design life, has a limited service life, and/or does not meet normal condition expectations.

POOR - Not functional at the time of inspection or exhibiting conditions conducive to imminent failure. Element shows considerable wear or has a substantial defect, is missing when it should be present, and/or is not in working or operating order.

NOT CHECKED (NOT EVALUATED) - Element was disconnected or de-energized, was not accessible, was not visible, exhibited improper or unsafe conditions for inspection, was outside scope of the inspection, and/or was not inspected due to other factors, stated or otherwise.

NOT APPLICABLE - Elements or components were not present, were not observed, are not within the scope of the inspection, and/or were not inspected due to other factors, stated or otherwise.

SEE COMMENT - Review inspector comments, addenda, or SUPPLEMENTAL INFORMATION related to the specified element(s).

LIMITATIONS - Items listed under LIMITATIONS indicate conditions that may have impeded completion of a standard limited time/scope inspection pursuant to industry standards. If removal or elimination of the limitation occurs, inspection prior to closing is advised.

IMPORTANT NOTE - An element rated POOR requires immediate repair, replacement or other remedial work, or has a high probability of requiring such work in the very near future. An element listed in FAIR condition, has at least a moderate probability that repair, replacement or other remedial work will be required now or in the near future. If any decision about the property or its purchase would be affected by the cost of any remedial work, firm contractor quotations should be obtained prior to making any such decisions.

A SUBSTANTIAL DEFECT is a condition which may require an expenditure over \$500 to repair, replace or otherwise correct, an expenditure which represents a significant portion of the estimated replacement cost of the listed element, and/or a defect that must be corrected now or in the near future for proper element function.

GENERAL INSPECTION GUIDELINES

- Review important information on pertinent topics on the reverse of this and each report page.
- Construction Regulations
 - Estimated Ages
 - Remedial Work
 - Home Maintenance
 - Design Life Range
 - Wood Destroying Insects
 - Specific Element Inspection
 - Cottage (Light) Construction
 - Aesthetic Considerations
 - Element Descriptions
 - Elements Not Inspected
 - Radon
 - Occupant Sampling
 - Vacant Building
 - Environmental Exclusions
 - National Standards
 - Work in Progress
 - Condominium/Townhouse
 - Seasonal/Weather Factors
 - Design and Adequacy
 - Owner Questionnaire
 - Owner Inspection

GENERAL INSPECTION GUIDELINES

The following comments provide general information regarding home inspections, including normal limitations and exclusions, as well as some specific guidelines on the use of this report. Review these comments and all SUPPLEMENTAL INFORMATION in each section of the report, particularly those highlighted (*) or checked.

CONSTRUCTION REGULATIONS - A standard home inspection does not include evaluations of a property for compliance with building or health codes, zoning regulations or other local codes or ordinances. Such inspections, if required, are normally performed by the local officials or private code inspection agencies at the time of the original construction or renovations. Codes are revised on a periodic basis; consequently, existing structures generally do not meet current code standards, nor is such compliance usually required. Any questions regarding code compliance should be addressed to the appropriate local officials.

HOME MAINTENANCE - All homes require regular and preventive maintenance to maximize the economic life spans of the elements and to minimize unanticipated repair or replacement needs. Annual maintenance costs may run 1 to 3% (or more) of the sales price of the house depending on age, design, and/or the degree of prior maintenance. Each homeowner should budget for normal maintenance needs and unexpected repair expenses. A program for ongoing preventive maintenance should also be developed.

AESTHETIC CONSIDERATION - A standard home inspection report does not generally include aesthetic considerations (appearances, cosmetics, odors, finishes, etc.), nor does it include a determination of all potential concerns or conditions for a house or property.

ENVIRONMENTAL EXCLUSIONS - The reported/actual health effects of many potentially harmful, toxic or environmentally hazardous elements that may be found in the air, soil, water or building materials in and around any house are varied, and in some cases controversial. A home inspection does not include the detection, identification or analysis of any such element or related concerns such as, but not limited to, radon, formaldehyde, asbestos, lead, electromagnetic fields, carbon monoxide, insecticides, refrigerants and fuel oils. Furthermore, no evaluations are performed to determine the effectiveness of any method or system (e.g., water filter, radon mitigation, etc.) designed to prevent or remove any hazardous or unwanted materials or elements. An environmental specialist should be contacted for evaluation of any potential health or environmental concerns.

DESIGN AND ADEQUACY - This inspection does not include structural or mechanical systems design or adequacy evaluations including seismic or high wind considerations or energy conservation measures. It does not address in any way the acceptability of a house's floor plan or other design feature. Furthermore, no determinations are made regarding product recalls or other similar manufacturer or public/private agency warnings.

ESTIMATED AGES - Estimated ages represent the inspector's opinion as to the age of the building or specific elements and are intended as a guide only. This opinion may be based on numerous factors including, but not limited to, element appearance and owner comment. Obtain independent verification of knowledge of specific element ages desired or required. All listed ages are in years unless otherwise noted.

DESIGN LIFE RANGE - This figure represents the typical estimated economic service life range (in years) for elements of similar design, quality and type measured from the time of original installation or construction. Any stated design life is presented solely as a guide, does not take into consideration abnormal, unknown or discretionary factors and is not a prediction of future service life.

ELEMENT DESCRIPTIONS - Any descriptions or representations of an element, material, type, design, size, dimensions, etc. are generally made based solely on a visual assessment of observed components. Owner representations, element labeling, tags, data and documentary measurements may also be considered in an effort to describe an element. However, no guarantee of the accuracy of such descriptions or measurements is made as part of this report. Other material components, tests or measurements may be present. Independent evaluations and/or laboratory tests should be arranged if verification of any element's material makeup, design or dimensional representation is desired.

NATIONAL STANDARDS - Building codes, construction industry standards of practice, approved testing laboratories (e.g., GSA, etc.) vary from area to area in the United States and Canada. No assessments were made regarding acceptability or approval of an element or component by any agency. Any questions arising from the

REMEDIAL WORK - For any element or condition requiring attention, quotes should be obtained prior to closing from qualified specialists or contractors to determine probable or actual costs. Any cost estimates provided, whether oral or written, represent only an approximation of possible costs. Also, cost estimates do not reflect all possible remedial needs or costs for the property; latent concerns or consequential damage may exist. If the need for remedial work develops or is uncovered after the inspection, contact HouseMaster to arrange an inspection to assess conditions.

WOOD DESTROYING INSECTS - It would be advisable to obtain a current wood destroying insect and organism report on this property from a qualified specialist, whether or not it is required by a lender. A standard home inspection does not include evaluation of the nature or status of any insect infestation, treatment or hidden damage.

ELEMENTS NOT INSPECTED - In general, any element not inspected should be assessed prior to closing. Either make arrangements with the appropriate tradesman or contact the HouseMaster office to arrange an inspection when all elements are ready for inspection.

WORK IN PROGRESS - Certain construction/finish work was incomplete and/or repair/renovation work appeared to be in progress at the time of inspection. This condition may have prevented/restricted evaluation of certain elements. Before closing, obtain confirmation of the completion of all work and acceptability of same by building officials.

OWNER INSPECTION - This inspection was performed at the owner's request, for the purpose of determining the conditions of specified elements of the property. The report was prepared pursuant to an agreement between the client (owner/seller) and inspection company. Use of this report by a third party requires approval of the client and inspection company and is subject to all limitations stated herein and in said agreement.

RELOCATION INSPECTION - This inspection report was prepared pursuant to a request by the named client. Accordingly, the report may not cover all potential areas of concern a third party may have. This report is transferable only with the consent of the named client and the inspection company, and such transfer does not imply any warranty or guarantee regarding the report by the inspection firm.

SPECIFIC ELEMENT INSPECTION - At client's request, the inspection was specifically limited to the elements commented on in this report. Accordingly, this report should not be considered a standard home inspection of the building nor does it cover all conditions or concerns which may exist now or develop at a later date.

ELEMENT SAMPLING - Sampling of any element or material was done at client's direction and is considered a related service, not part of a standard home inspection. Any analyses of such sample (radon, lead, water, etc.) are not technically exhaustive. When results are received (usually forwarded separately at a later date), they should be immediately reviewed to ascertain that any personal concerns have been addressed.

CONDOMINIUM/TOWNHOUSE - Unless otherwise noted, inspection of units under condominium or cooperative forms of ownership do not include evaluation of elements or other typical common elements. Contact association and management personnel and review pertinent material (such as engineering reports on common element conditions, master deeds, maintenance responsibilities, etc.) and carefully review this report to verify all items of personal concern have been inspected.

If client requires additional element evaluation arrangements should be made with the inspection office. **COMMON ELEMENTS** - Conditions listed elsewhere in this report. **FUNCTIONAL** - Functional as of time of inspection. **NEW CONSTRUCTION** - Inspection of new construction (house under construction or not previously lived in) is restricted to an evaluation of existing conditions as a new house has not gone through the "settling" time. The report is not intended as a "punch list" inspection of all possible concerns. Anticipate changes in element conditions as the house ages and/or components are utilized and settlement occurs or latent deficiencies surface. Obtain warranty information from the builder.

COTTAGE (LIGHT FRAME) CONSTRUCTION - This house appears to have been constructed using light framing and other features typical of the style, a design generally considered substandard for construction today. The design or construction methods used were possibly acceptable at time of construction; however, if renovated in the future, more stringent construction methods should be applied.

VACANT BUILDING - It is often difficult to properly evaluate certain elements if a property has been vacant for any length of time. For

the possibility of such occurrences when use of the house and inspection is recommended.

SEASONAL/WEATHER FACTORS - Due to seasonal factors in weather, conditions, evaluation of some elements may have been restricted or not possible. Client should determine the level of concern not due to seasonal factors and arrange additional inspections when conditions permit.

OWNER QUESTIONNAIRE - Any Owner Questionnaire provided with this report is intended to assist the buyer in obtaining background information on the property. This form is not a substitute for any legally required Seller Disclosure. The buyer should review the form with the owner prior to closing to ensure completion and clarification/resolution of any questionable items. A pre-closing inspection of the house by the buyer is generally advised.

SUBSTRUCTURE

NOT APPLICABLE

BASEMENT: ☐ None Observed ☒ Full House ☐ Unfinished ☐ Finished Area(s) ☐
CRAWL SPACE: ☒ None Observed ☐ Full House ☐ Under Portions Of House ☐
Location #1: _____ #2: _____
CRAWL SPACE INSPECTION METHOD: ☒ Not Applicable ☐ No Visible Access ☐ Entered ☐ From Entry
☐ Limited Entry ☐ Inaccessible ☐
FOUNDATION WALLS/PIERS: ☒ Block ☐ Concrete ☐ Brick/Stone ☐ Pier ☐ w/Curtain (Veneer) Wall ☐ Wood
☐ Not Determined ☐
HOUSE FLOOR STRUCTURE: ☒ Wood Frame ☐ Joist ☐ Truss ☐ Laminated ☐
Column(s): ☐ Wood Post ☒ Metal ☐ Metal Screw Jack ☐
INSULATION: ☐ Not Determined Description: R-11 Ave. (inches): 3+ Location: Ceiling
VAPOR RETARDER: ☐ Not Determined ☐ Incomplete ☐ Observed; Extent Indeterminate ☐ Not Found/Detected

1 FOUNDATION WALLS
2 PIERS/COLUMNS
3 FLOOR FRAMING
4 MAIN BEAM(S)
5 BASEMENT SLAB
6 STAIR/RAILING
7 CRAWL SPACE VENTILATION
8 CURTAIN (VENEER) WALLS
9
10
11
12
13
14
15
16

17 LIMITATIONS: ☐ Common Areas ☐ Storage/Belongings ☐ Finish Materials ☐ Suspended/Drop Ceilings ☐ Insulation ☐ Water/Debris ☐ Limited Clearance
☐ Area Not Inspected: _____ % ☐

NOTE: Review other areas of report for any additional comments on the structure. This report does not represent an engineering evaluation of the structure.
* Crawl spaces located at or below grade are particularly prone to moisture and insect concerns; due to typical access restrictions, evaluations are generally limited.

18 SUPPLEMENTAL INFORMATION - Review details related to pertinent topics on the reverse of this page.

- ☒ Structural Evaluations ☐ Screw Jack/Adjustable Columns ☐ Engineered Lumber ☐ Vapor Retarder/Insulation ☐ Ventilation Provision
- ☐ Stone/Brick Foundation ☐ Balloon Framing ☐ Framing Conditions ☐ Below Grade/Soil Contact ☐ Leakage/Stain
- ☐ Foundation Conditions ☐ WD Insect Treatment ☐ Moisture/Condensation ☐ Curtain (Veneer) Walls

WATER PENETRATION

NOT WITHIN SCOPE OF THIS INSPECTION

SUBGRADE AREAS: ☐ Not Applicable ☐ Crawl Space Area(s) ☒ Basement ☐ Garage ☐ Areas of House Slab

SUMP PUMP(S): ☐ Not Determined ☐ Inaccessible ☐

Location: #1 _____ #2 _____

1 INDICATIONS OF WATER PENETRATION CONDITIONS: ☒ Water Marks/Stains ☐ Wet ☐ Dampness ☐ Mildew/Condensation ☐ Indeterminate

☐ Owner/Tenant Comment ☐

2 GENERAL LOCATION OF OBSERVED CONDITIONS: ☐ House Slab Areas ☒ Basement ☐ Crawl Space(s) ☐ Lower Level ☐ Garage ☐ GOW
☐ Multiple Areas ☐

3 SUMP PUMP(S): ☐ Satisfactory ☐ Fair ☐ Poor ☐ Not Applicable ☐ Not Checked ☐

4 INDICATIONS OF POSSIBLE PRIOR REMEDIAL WORK: ☐ Owner Statement ☒ Construction/Coatings ☐ Drainage/Grading ☐ Excavation Work
☐ Indeterminate ☐

5 LIMITATIONS: ☐ Common Area ☐ Inaccessible Areas ☐ Recent Work/Refinishing ☒ Limitations as listed in SUBSTRUCTURE or SLAB CONSTRUCTION Sections
☐ Other: _____

6 DETAILS: SCOPE SOIL AWAY FROM HOUSE. KEEP DOWNSPOUTS OPEN AND FLOWING OR CONSIDER EXTENDING SPOUTS

NOTE: Review all sections of the report for any comments on roof, plumbing or other leakage/infiltration concerns. This section is limited to an assessment of at-grade/subgrade moisture/water penetration conditions readily visible at time/date of inspection. Moisture/water penetration conditions are subject to unpredictable changes; future conditions can not be determined. Confirm past history/status of any concerns with owner and local authorities. A HAZARDOUS MATERIALS INSPECTION IS NOT PART OF THIS INSPECTION.

18 SUPPLEMENTAL INFORMATION - Review details related to pertinent topics on the reverse of this page.

- ☐ Water Penetration ☐ Check Valve no notatumuob ☐ Drainage Systems ☐ Window Walls ☐ Grading/Floor Drains
- ☐ Sump Pump Discharge ☐ Back Water Valve ☐ Floor Drains ☐ Exterior Entryway ☐ Moisture Barriers
- ☐ Future Drain to Sump ☐

SUBSTRUCTURE

STRUCTURAL EVALUATION - Review the following comments:

INSPECTION LIMITATIONS - Evaluation of major structural elements is limited to an assessment of a representative portion of the readily accessible visual components. Design factors are not considered. Insulation is not normally moved/disturbed; hidden or latent concerns cannot be identified. Any obstructed area or areas where evaluation was otherwise prevented should be inspected when limiting conditions are removed.

WOOD DETERIORATION/INSECTS - Wood deterioration or damage, whether from wood-destroying insects or decay, is more critical when major structural members are damaged. While some concerns may have been identified, additional concerns may exist. When evidence of decay and/or wood-destroying insect infestation or damage is noted, a full assessment should be made to determine extent of any damage or remedial measures required.

CRAWL SPACES - These areas are particularly prone to detrimental conditions including wood deterioration or damage. Proper ventilation and moisture barriers should be maintained. Check periodically for potential concerns.

FINISHED AREAS - In addition to the obvious fact that finished surfaces may restrict structural evaluations, it should be noted that no evaluations are made regarding local permits or approvals for such work or use. Compliance regarding egress, plumbing, heating or electric requirements should be determined by contacting local building officials.

MANUFACTURED HOMES - Should any questions exist or develop regarding the design or construction requirement for manufactured homes, the manufacturer should be contacted. This report does not include any evaluation of design or construction methods including adequacy of tie-down.

SEISMIC CONSIDERATIONS - Seismic construction requirements are generally not evaluated within the scope of a standard inspection. It would be advisable to have a qualified specialist inspect any house in an area with a moderate to high earthquake potential for seismic construction and prior earthquake effects.

WOOD FOUNDATIONS - This type system requires critical adherence to design and construction specifications to minimize structural or water penetration concerns. Most components are covered and not readily visible. Any signs of moisture, decay or substandard work dictate that a full evaluation be performed by a specialist before closing.

STONE/BRICK FOUNDATIONS - The potential for general or localized deterioration is a concern with very old foundations of this type construction or those built without consideration for the fundamentals of foundation design and waterproofing. Ideally, any repairs required should be performed in a manner consistent with existing materials and construction.

FOUNDATION CONDITIONS - Providing/maintaining adequate foundation grading is always critical to minimize detrimental conditions. Significant foundation movement is usually indicative of a structural concern. Whether an older or ongoing condition, evaluation by a qualified specialist is generally advised as only a precautionary measure. If the movement is lateral (horizontal cracking) or in some way has affected other structural components, remedial measures will usually be required.

SCREW JACK/ADJUSTABLE COLUMNS - The use of permanent support columns is preferred, although in some areas use of adjustable columns is common. Should column defects exist or develop, replacement with a permanent column or pier may be necessary.

BALLOON FRAMING - This older type framing is generally structurally acceptable, but there may be open wall voids without the type firestop currently required. Install firestops where feasible.

WOOD-DESTROYING INSECT TREATMENT - There are indications of possible prior treatment of the house with an insecticide. Obtain documentation from owner on purpose, methods employed, etc. No treatment adequacy/contamination evaluations were performed.

ENGINEERED LUMBER - This type construction requires special design considerations for proper load carrying. Members (truss, laminated beams, etc.) should not be cut or field altered. Remedial needs generally require assessment by a qualified specialist.

FRAMING CONDITIONS - Excess notching, improper construction methods, substandard materials or ongoing conditions such as decay or wood-destroying insects can adversely affect framing members throughout the house. Accordingly, any consequentially affected or hidden damage areas should be assessed when determining remedial needs.

MOISTURE/CONDENSATION - Excessive moisture levels may have caused structural damage; contributory factors should be eliminated. Review comments in WATER PENETRATION section.

VAPOR RETARDER/INSULATION - Assessment of the presence or absence of vapor retarder (barrier) is often restricted by insulation or finish materials. In colder climates, a retarder is typically required to be provided between the house and unconditioned areas such as the attic. If not installed or installed improperly, it should be corrected. Conditions monitored for moisture concerns.

BELOW GRADE FRAMING/SOIL CONTACT - Wood framing located below grade, in contact and/or close proximity to the soil is prone to decay and insect damage. Decay of wood posts may directly and adversely affect key structural elements. Any areas of damage should be checked for extent and remedial needs prior to closing.

CURTAIN (VENEER) WALLS - The exterior walls in this type construction are filler walls or veneers only; should structural members be supported by these walls, load transfer/stability may be inadequate.

VENTILATION PROVISIONS - Unconditioned sub-grade areas particularly crawl spaces, need year round ventilation unless heated. Advise upgrading or correcting vent(s) to provide adequate cross-ventilation should moisture conditions exist or inadequate venting be indicated.

LEAKAGE/STAIN - The cause/source for any reported/suspected leakage should be confirmed and repaired as needed.

WATER PENETRATION

WATER PENETRATION - Review the following comments:

GENERAL CONSIDERATIONS - Most houses have the potential for surface or subsurface water penetration. Regardless of any specific report comments, it would be prudent in all cases to discuss local conditions and concerns with the present owner and local authorities. Any comments made in this report are based on evidence/indication present at the time of inspection only. It is not possible to accurately determine the extent of past conditions or to predict future concerns. If there are indications of prior remedial work intended to reduce water penetration concerns, documentation should be obtained from the owner and/or installer.

Experience indicates that the majority of water penetration concerns are due to a combination of factors commonly related to inadequate foundation grading and drainage provisions. In many situations, relatively straightforward measures may have a direct effect on the condition; in other cases, the remedy may be more complex or impossible to achieve. Any specific recommendations in the report should be considered; however, be aware that they do not necessarily represent a complete or permanent solution to the condition.

SUMP PUMP - A sump pump may be added out of necessity or as a precautionary measure. Regardless, if present, it should be regularly checked for proper operation and discharge. Pump operation may change seasonally, due to rainfall or other factors. If an ongoing concern exists, consideration should be given to having a backup generator and/or battery energy source for emergency situations. The discharge adequacy/location of underground lines cannot be checked.

SUMP PUMP DISCHARGE - Sump pump discharge should be directed away from the foundation to minimize any backflow and recurring seepage or damage. Discharge to a public waste line or private sewage system is generally unacceptable and may be subject to a fine. Redirect to the exterior where appropriate or required.

FIXTURE DRAIN TO SUMP - Plumbing fixtures should not drain to an open sump pit. A separate ejector pump system would be advisable if direct connection to a sanitation line is not feasible.

CHECK VALVE - Pump discharge water may backflow to the sump if there is no check (backflow) valve, or if it is malfunctioning. Repair or add a suitable backflow valve as required.

BACKWATER VALVE - A valve on the floor drain or sewer lines may be indicative of a prior or chronic backup concern. If such a valve is present, obtain information from the owner on past use, service as needed. Determination for the need for such valves is beyond the scope of this inspection.

DRAINAGE SYSTEM - Any perimeter drainage system that may have been constructed or added should help minimize any water seepage concerns. These systems, however, can become clogged or overburdened; consequently, monitoring is required.

FLOOR DRAINS - The termination point of floor drains is not determinable within the scope of a home inspection. Any drains connected to the sanitary system should have a permanent seal/cap. Floor drains are subject to backup and overflow.

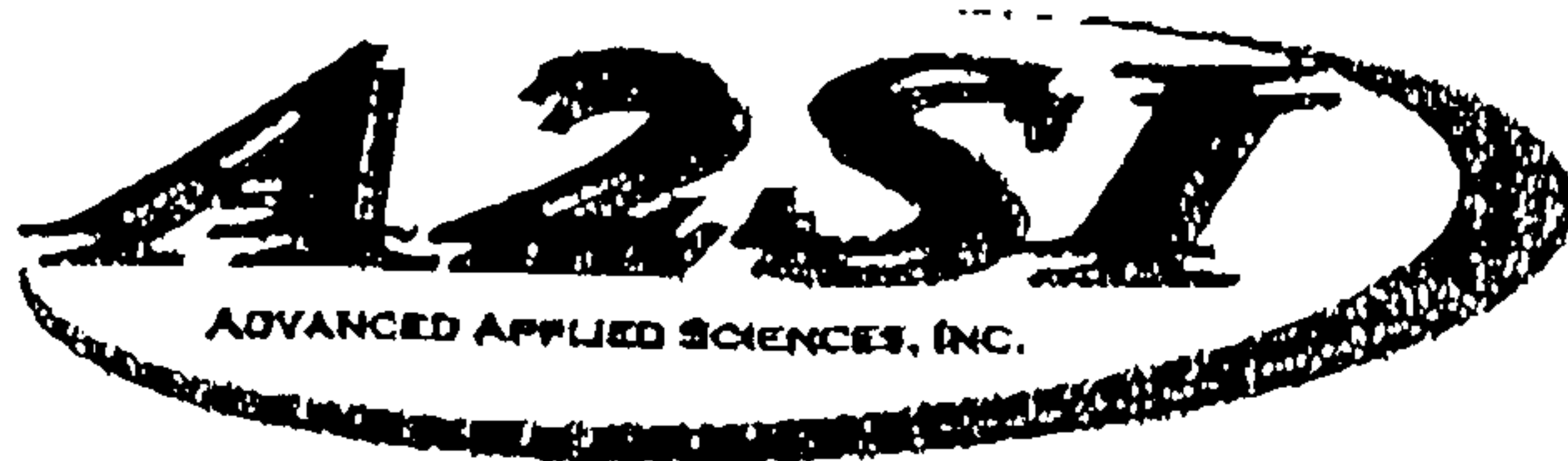
WINDOW WELLS - Review comments in SITE ELEMENTS section

EXTERIOR ENTRYWAY - The areaway (stairs and any walls) providing access to subgrade areas often contributes to seepage due to inadequate or clogged drains or lack of coverings. The appropriate remedial work should be performed if detrimental conditions exist.

GRADING/ROOF DRAINS - Providing an adequate roof drainage system, diverting all downspouts away from the foundation and providing adequate soil grading and ground cover at the foundation are primary remedial factors to consider for any water penetration concerns.

MOISTURE BARRIER - Generally, a moisture barrier should be provided over dirt crawl space floors to minimize rising dampness. Care should be taken to install it in such a way to prevent any accumulation on top of the barrier.

EXHIBIT “K”



September 12, 2002

Mr. Jack P. & Karen A. Marrone
11673 Highway PP
Dixon, Missouri 64559

RE: Consultative Services - A2SI Project No. 2134
Litigation Support of Civil Action No. 1: CV-01-0073
SUBJECT PROJECT:

Marrone Residence
354 Timber Road, (Mt. Gretna)
Lebanon, Pennsylvania
Addendum to A2SI Project # 2008116
(Original Report Date 10/15/2000)

Dear Mr. & Mrs. Marrone:

At the request of you and your attorney, Gianni Floro of Tarasi, Tarasi & Fishman, a review of A2SI's earlier project report #2008116 was performed. As an additional support, we reviewed some additional pictures taken in the residence at 354 Timber Road by Mr. Floro, sometime after our original visit on 8/28/2000. In the pictures, more of the basement foundation wall finish (paneling, fiberglass insulation, and black roofing paper) and the ceiling drywall had been removed. These pictures helped to confirm our opinions stated in the original report that the exterior wall treatment was a significant contributor to the moisture and humidity levels in the basement which allowed the fungal growth we identified to grow and multiply.

At the time of our original visit, only a limited amount of wall and ceiling covering had been removed. The more recent pictures show additional discoloration from moisture, of the cement block foundation walls throughout the basement, and possibly from some fungal growth (as was found in sample 82800-002 in the earlier report), as well.

COMMENTS

During the many IAQ/IEQ (indoor Air Quality/ Indoor Environmental Quality) surveys and assessments we have performed, we have observed a significant number of basements which had been finished in conventional ways, but should not have been finished due to a variety of limiting factors (circumstances and conditions). These limiting factors range from terrain and topography issues, to foundation type (cement block as opposed to a poured cement foundation), to the condition of the foundation, to

CORPORATE HEADQUARTERS
4400 LINGLESTOWN ROAD ♦ HARRISBURG, PA, 17112

TELEPHONE: (717) 651-9377
FAX: (717) 657-0752

Jack P. & Karen A. Marrone
Consultative Services
Marrone Residence, 354 Timber Road, (Mt. Gretna)
Litigation Support of Civil Action No. 1: CV-01-0073
A2SI Project No. 2134
Sept. 12, 2002
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the presence of ongoing leaks or seepage (indicated by efflorescence and staining), to preexisting mold indications, to indications of elevated interior humidity from additional sources such as unvented hot tubs and combinations of these previously mentioned factors. If a home has one or more of these factors, there is a good possibility of moisture problems occurring in this basement, if inappropriate wall finishing methods are used significant mold growth can also become an issue. Based on our assessment, the residence at 354 Timber Road, had all of the limiting factors mentioned above.

CONCLUSIONS

Moisture that passes through the wall must be allowed to evaporate and be exhausted from the area by normal air exchange, or be removed by dehumidification. Sealing the wall surface by placing a "vapor barrier" or vapor retardent such as black roofing paper against the foundation surface will prevent normal evaporation of water passing through the foundation, so this moisture will build up behind the "vapor barrier" until it begins leak out the bottom of the wall (usually dampening the carpet pad and carpet, if present, which will usually result in mold growth in the carpet, as was also found here) or through seams in the vapor retardent. Excessive amounts of moisture behind this type of vapor retardent (many seams = leak points) will result in elevated humidity levels in the wall cavity and mold growth in the wall cavity. Another moisture source in a wall cavity of this type, is moisture from the humid basement (hot tub, leaking plumbing, humid air coming in from outside) permeating through the paneling, through the insulation and reaching the cool surface of the vapor barrier covered foundation. This moisture is likely to condense and dampen the foundation wall surface and maintain the humidity of the wall cavity and to a lesser degree the wall covering (paneling) to allow mold growth to continue. So, if adequate rain has occurred for ground water to lie against the foundation and to penetrate foundation wall, the moisture will collect in the wall cavity. If rain has not occurred for while but humidity levels are high, the cooler surface of the foundation will still condense moisture which will collect in the wall cavity. Either situation results in moisture which will collect in the wall cavity and produce potential mold growth.

With a reasonable degree of scientific certainty, based on our experience and training, the mold growth in the Marrone residence at 354 Timber Road was a result of the elevated moisture levels in the basement and in the basement wall cavities. These moisture levels were the result of the contributing factors detailed in the COMMENTS section, but primarily were the result of the inappropriately constructed finishing walls of the interior of the foundation trapping moisture that under other circumstances would have simply evaporated away.

Jack P. & Karen A. Marrone
Consultative Services
Marrone Residence, 354 Timber Road, (Mt. Gretna)
Litigation Support of Civil Action No. 1: CV-01-0073
A2S1 Project No. 2134
Sept. 12, 2002
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RECOMMENDATIONS

For a basement such as this to be finished, an exterior drainage system and modifications to the landscaping would be suggested parts of the corrective actions required. The simplest but least attractive finishing approach would be to simply paint the foundation block walls with a waterproofing paint and operate a dehumidifier in the basement. A more cosmetic interior treatment would be to put wood studs and insulation up with a tight vapor barrier such as plastic sheeting, on the interior side (towards the room) of the insulation. However, with the amount of moisture potentially passing through the foundation, there is a high probability that moisture levels would still be elevated in the wall cavities, the carpets could still become damp and mold could still grow both in the wall cavities and in the carpet. Operation of one or more dehumidifiers in this basement would improve the situation by reducing the moisture levels present. A third option which we have seen have success in this type of situation is to build the finishing wall several inches from the foundation wall to provide an air space. This space is then ventilated by a small exhaust fan (more than one may be needed) which draws the damp air out of the space and vents it from the house. A further modification would have a dehumidifier in an adjacent area to the wall cavity (utility room or closet) and vent the dehumidified air into the wall cavity to further reduce the humidity level in the wall. A second dehumidifier drying the basement room air would further improve the conditions by reducing vapor loading, humidity levels and consequently, the potential for condensation.

ADDITIONAL INFORMATION

Mr. Pfromm has been qualified as an expert on several occasions, as follows:

- 1985 – expert witness court testimony in a gasoline spill incident;
- 1990 – expert witness court testimony in a case against a laboratory regarding laboratory operations and analytical testing procedures;
- 2001 – expert testimony (deposition) involving indoor air quality, indoor environmental quality, health related issues, in a project with a major Pennsylvania State agency
- 2002 – expert testimony (deposition) in an Alabama case regarding indoor air quality and indoor environmental quality, health related effects, and source identification.

References

Bioaerosols – Assessment and Control, published by the ACGIH (American Council of Governmental Industrial Hygienists) 1999

Jack P. & Karen A. Marrone

Consultative Services

Marrone Residence, 354 Timber Road, (Mt. Gretna)

Litigation Support of Civil Action No. 1: CV-01-0073

A2SI Project No. 2134

Sept. 12, 2002

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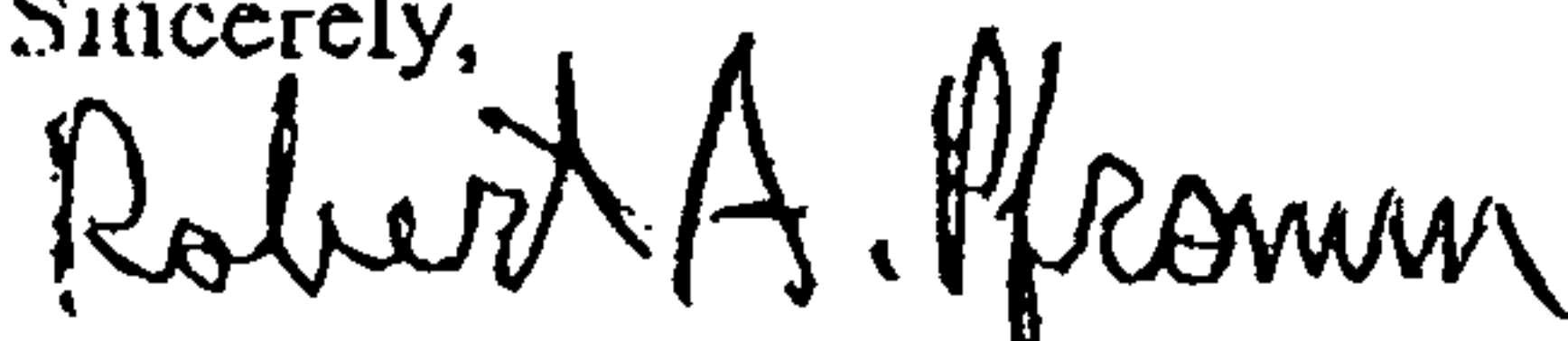
Guidelines for the Determination, Remediation and Prevention of Biological Contamination in Indoor Environments, Professional Development Course (#704) AIHA (American Industrial Hygiene Association) and the ACGIH, 1999 AIH Conference and Exposition

Controlling Moisture and Microbial Problems in Buildings, Professional Development Course, 1999 Mid Atlantic Environmental Hygiene Resource Center

Remediation and Prevention of Biological Contamination in Indoor Environments, Professional Development Course (#706) AIHA (American Industrial Hygiene Association) and the ACGIH, 2001 AII Conference and Exposition

A2SI was pleased to assist you with this investigation and thank you for the opportunity to submit this Addendum to our previous project..

Sincerely,



Robert A. Pfromm, CIH
Senior Technical Advisor

Enclosures

ROBERT A. PFROMM, CIH
SENIOR TECHNICAL ADVISOR

P R O F E S S I O N A L E X P E R I E N C E

ADVANCED APPLIED SCIENCES, INC.

March 1999 to Present

SENIOR TECHNICAL ADVISOR

Mr. Pfromm presently serves as the Senior Technical Advisor for Advanced Applied Sciences, Inc. from which he is primarily responsible for providing technical oversight and supervision in support of our indoor air quality, industrial hygiene, environmental, health and safety projects. Mr. Pfromm also provides training in the areas of indoor air quality and bioremediation.

For more than eighteen years, Mr. Pfromm has worked as an occupational safety and health professional. The American Board of Industrial Hygiene (ABIH) has certified him in the Chemical Aspects of industrial hygiene since 1988. In 1999 Mr. Pfromm tested for and received from the ABIH, the rare sub-specialty certification in Indoor Environmental Quality. In the field of occupational safety and health he has personally performed hundreds of surveys, investigations and assessments over the broad range of that discipline. His experiences have additionally been enhanced by many projects in the province of the environmental sciences; ranging from analyses of environmental air, water and soil samples and laboratory management, to phase 1 auditing, safety and health training, indoor air quality surveys and project management on biological remediation, lead abatement and asbestos remediation. He has had extensive experience interfacing with engineering, architectural, medical and legal professionals, as well as union and employee groups such as teachers unions as they were integral to and associated with these projects.

Mr. Pfromm has worked closely with company & corporate managers and professionals. At the same time he has had to communicate with and establish a working relationship with supervisors, staff, technical personnel, laborers, students and their parents. As a technical trainer, he has taught engineers, chemists, teachers, educational administrators and maintenance and custodial personnel in a variety of occupational and environmental subjects, including Bloodborne Pathogens, Right to Know, Asbestos Awareness and Indoor Environmental Quality Awareness. To function in these capacities, he has had to develop and maintain considerable communication and personnel skills.

ROBERT A. PFROMM, CIH
SENIOR TECHNICAL ADVISOR

AMERICAN WESTECH, INC.

March 1989 to Present

DIRECTOR, INDUSTRIAL HYGIENE SERVICES

Advanced Applied Sciences, Inc. provides consulting services to American Westech, Inc. as a subcontractor. Mr. Pfromm manages the account and is responsible for achieving and maintaining certification of the laboratory by the American Industrial Hygiene Association (AIHA) and ensuring that the level of training, quality control and performance of the laboratory facility, its operation, and its personnel meet or exceed all applicable AIHA requirements.

Mr. Pfromm is directly responsible for the development and implementation of a sound Quality Assurance (QA) and Quality Control (QC) Program pertinent to the industrial hygiene department of American Westech, Inc.

INX CORPORATION

July 1998 to March 1999

**DIRECTOR, INDOOR AIR QUALITY SERVICES/
CERTIFIED INDUSTRIAL HYGIENIST**

Mr. Pfromm marketed, planned, executed, and reported Indoor Air Quality services to a wide range of clients from industry to schools and homeowners. He was also responsible for planning and managing remediation projects based on survey results.

KARL & ASSOCIATES

October 1996 to July 1998

SENIOR INDUSTRIAL HYGIENIST

Mr. Pfromm was responsible for marketing, planning, implementation, and reporting of a variety of industrial hygiene and indoor air quality services for a broad range of clientele, from factories to school districts. In addition, Mr. Pfromm administered and performed an extensive range of training programs for employees of client school districts to meet state requirements. Mr. Pfromm also administered an environmental services program for a consortium of school districts in New Jersey.

ROBERT A. PFROMM, CIH
SENIOR TECHNICAL ADVISOR

INDEPENDENT CONSULTING

January 1986 to October 1986

CERTIFIED INDUSTRIAL HYGIENIST

Mr. Pfromm provided a variety of industrial hygiene and indoor air quality services to a broad range of clientele, from consulting engineers to school districts. In addition, Mr. Pfromm performed an extensive range of training programs.

**ANALYTICAL HYDROLOGY
ASSOCIATES, LTD. (AHA)**

January 1990 to July 1992

**ANALYTICAL LABORATORIES OF
SKELLY AND LOY, INC. (ALSL)**

July 1992 to December 1995

**CERTIFIED INDUSTRIAL HYGIENIST, DIRECTOR- INDUSTRIAL
HYGIENE LAB SERVICES, SENIOR ENVIRONMENTAL CHEMIST**

Mr. Pfromm provided a variety of industrial hygiene and indoor air quality services to a broad range of clientele, from consulting engineers to school districts (ALSL). In addition, Mr. Pfromm served as Organics Section Group Leader for the laboratory (ALSL). At Analytical Hydrology Associates (AHA), Mr. Pfromm was Laboratory Manager and Senior Environmental Chemist responsible for all laboratory operations, training of other chemists and report preparation and review.

TRACOR INSTRUMENTS, INC

October 1988 to January 1990

SENIOR MARKETING REPRESENTATIVE

Mr. Pfromm provided sales and technical training to clientele of this analytical instrument manufacturer in a variety of environmental and industrial hygiene services to a broad range of clientele, from consulting engineers and laboratories to municipal water treatment authorities. In addition, Mr. Pfromm received the companies' "Presidents Award" for second highest national sales and third highest worldwide sales in 1989.

ROBERT A. PFROMM, CIH
SENIOR TECHNICAL ADVISOR

SPOTTS, STEVENS & MCCOY, INC. (SSM)

June 1981 to October 1988

**INDUSTRIAL HYGIENIST, SENIOR ENVIRONMENTAL CHEMIST,
CERTIFIED INDUSTRIAL HYGIENIST (1988)**

Mr. Pfromm served as Organics Section Group Analyst for the Industrial Hygiene laboratory and later as Group Leader. Mr. Pfromm also provided a variety of industrial hygiene and indoor air quality services to a broad range of clientele, from consulting engineers to school districts. The broad range of projects SSM was involved in as a consulting engineering firm, exposed Mr. Pfromm to a rich level of industrial hygiene and environmental experience which has proven to be extremely valuable in his later endeavors.

E X P E R I E N C E H I G H L I G H T S

Since 1988, Mr. Pfromm has had many experiences working on sick building syndrome/indoor air and water quality projects. He has been the project manager on HVAC remediation projects for clients and investigated numerous complaints of illness from indoor airborne/microbial contaminants.

A partial list of Indoor Air Quality and Industrial Hygiene projects that Mr. Pfromm has been directly involved with as either a Project Manager or Lead Investigator follows:

- Chester County Courthouse Annex - fungi contamination.
- Little Egg Harbor School District, N.J. - fungi contamination, roof leak.
- Upper Deerfield School District, N.J. - excessive humidity and fungi contamination.
- Upper Saddle River School District, N.J. - fungi contamination.
- Woodridge School District, N.J. - fungi contamination.
- Pennsylvania State Senate Chamber - post remediation fungi clearance sampling.
- Lafayette College, Easton, PA. - fungi sampling in Library following elevated humidity condition.
- Waynesboro Hospital, PA. - investigation of foul odor, fungi and bacteria contamination.
- York Hospital, York, PA. - pre and post remediation fungi sampling in hospital wing.
- a leading surgical instrument manufacturer, Reading, PA. - plant wide survey for trace levels of sulfuric acid vapors, which were causing an etching problem.

ROBERT A. PFROMM, CIH
SENIOR TECHNICAL ADVISOR

- Diversified Mechanical Incorporated, PA. – Carbon Monoxide survey in warehouse of DMI client.
- DMI, PA. – Carbon Monoxide survey in an eastern PA. High school.
- Excelsior Blower Corp. PA. – Welding Fume survey in plant to determine effectiveness of improvements to ventilation system.

LITIGATION SUPPORT AND EXPERT TESTIMONY

Mr. Pfromm has performed many projects over the past twenty (20) years that involved epidemiological investigations, environmental health investigations, indoor air quality (IAQ) and indoor environmental quality (IEQ). Most recently, while at A2SI, Mr. Pfromm managed a comprehensive long-term IAQ/IEQ project for major Pennsylvania State agency that involved extensive health investigation studies, surveys, testing, public relations, and expert testimony. Due to our commitment to client confidentiality, we cannot discuss the details of such survey. However, the following reference is given to verify the work performed for that agency:

Pennsylvania Office of Administration
Mr. William Trusky
Manager, Accelerated Grievance Program
Bureau of Labor Relations
Room 404 – Finance Building
Harrisburg, Pennsylvania 17120
Telephone: 717-783-5160

In addition, Mr. Pfromm has been qualified to provide expert testimony on many occasions, most notably as follows:

- 1985 – expert witness court testimony in a gasoline spill incident;
- 1990 – expert witness court testimony in a case against a laboratory regarding laboratory operations and analytical testing procedures;
- 2001 – expert testimony involving indoor air quality, indoor environmental quality, health related issues, in a project with a major Pennsylvania State agency;
- 2002 – expert testimony in an Alabama case regarding indoor air quality and indoor environmental quality, health related effects, and source identification.

ROBERT A. PFROMM, CIH
SENIOR TECHNICAL ADVISOR

E D U C A T I O N A N D C R E D E N T I A L S

Kutztown University
B.S. Environmental Science, 1981
B.A. Marine Science, 1979

Certified Industrial Hygienist (CIH)
American Board of Industrial Hygiene (ABIH), 1988
Certificate #3948

Indoor Environmental Quality (Sub-specialty)
American Board of Industrial Hygiene (ABIH), 1999

A D D I T I O N A L T R A I N I N G

Kutztown University – "Noise and Man - Industrial Noise and Hearing Conservation" – 1981

University of Michigan - "Guidelines for the Assessment of Bioaerosols in the Indoor Environment" – 1989

Harvard University – Harvard School of Public Health – "Indoor Air Quality – Evaluation, Measurement and Control" - 1992

American Industrial Hygiene Conference (AIHC) – Professional Development Course (PDC) – "Indoor Air Quality and HVAC Systems" - 1995

AIHC – PDC – "Guidelines for the Determination, Remediation and Prevention of Biological Contamination in Indoor Environments" – 1998 & 2001

MidAtlantic Environmental Hygiene Resource Center – "Controlling Moisture and Microbial Problems in Buildings" - 1999

P R O F E S S I O N A L A F F I L I A T I O N S

Member, American Industrial Hygiene Association
Member, American Board of Industrial Hygiene

ROBERT A. PFROMM, CIH
SENIOR TECHNICAL ADVISOR

P U B L I C S E R V I C E

- President, Bernville Borough Council (Municipal Government), Bernville, PA
- Chairman, Water, Sewer and Public Safety Committee, Bernville Borough Council
- Member, Budget Committee, Bernville Borough Council
- Chairman, Emergency Services Committee, Bernville Borough Council



October 15, 2000
FINAL REPORT

Jack and Karen Marrone
354 Timber Road, Mt. Gretna
Lebanon, PA 17042

Project: IAQ Survey of the Marrone residence – 354 Timber Road, Mt. Gretna
A2SI Project # 2008116

Dear Mr. & Mrs. Marrone:

A2SI was requested by the Marrone's to perform a limited Indoor Air Quality/Indoor Environmental Quality (IAQ/IEQ) survey on 8/28/2000 to determine possible Bioaerosol (airborne Fungi, Mold and Yeast) involvement in Indoor Environmental Quality complaints related to the residence.

Executive Summary

The Marrone's have related that the home at 354 Timber Road, Mt. Gretna, was originally shown to them during a period of dryer weather. At that time, they did not observe any signs of water problems or visible mold. It was also stated, that as the weather changed and became damper, they began to notice more and more indicators of potential water problems (dampness in the basement, musty odors and eventually significant visible mold on the paneling and other surfaces). There were also some plumbing problems in the basement that became evident. These problems were indicated by numerous spots on the basement ceiling, where condensation from the pipes was wetting through the drywall ceiling and black spots leaching through at many of these points where mold was possibly growing (a common indicator of mold growth on the top surface of a ceiling). Visible mold became a significant noticeable problem in the basement and the Marrone's became concerned enough to request an IAQ/IEQ evaluation. Several members of the Marrone family were having indications of respiratory distress. Testing was performed as noted in the Scope of Work section, using appropriate methodologies and samples were sent to a qualified laboratory for incubation and identification. Several recommendations were made at the time of sampling based on the observed conditions. Evaluation of the results and observations led to the following conclusions:

Air, surface and carpet dust samples, all indicated the presence of fungi unrelated to the outside air, either by species or number, including the fungi *Aspergillus*, *Penicillium* and *Stachybotrys*, which are known and significant allergens. Heavy visible surface growth, all in the basement, was noted and sampled. The sampled surface locations were as follows: two separate walls in the basement (which appeared to have a coating of a faintly gray/green mold). Several other surfaces

1

CORPORATE HEADQUARTERS
4400 LINGLESTOWN ROAD ♦ HARRISBURG, PA, 17112

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had visible indications of mold, but were not sampled as representative surfaces of similar mold had already been sampled. Air samples were as follows: basement air, living room air, and outside the home for control and comparison purposes. Carpet dust was sampled in the basement and the living room. The basement was also found to have high Relative Humidity percentages (RH%) and a measurably higher airborne moisture loading (absolute humidity) than the outside air. The first floor RH% measured in the living room was within ASHRAE guidelines. The basement was found to have significant quantities of surface growth of known allergens and with the elevated interior humidity, additional growth would be possible, potentially resulting in a release of spores and fungal fragments (a "bloom" or amplification), which could challenge the respiratory conditions of the occupants. The cement block foundation interior walls are, in most of the basement covered with "tar paper" followed by fiberglass insulation and finished by wood fiber paneling. When a portion of the "tar paper" was peeled away by the homeowner, the foundation wall and the wall surface side of the "tar paper", were visibly wet.

Observations

The home has a mostly finished basement, with a cement floor and a cement block foundation. The house is built on rolling terrain, with landscaping in relatively close proximity. The ground around the home appeared quite damp. A2SI was contacted because of the presence of visible mold on a number of interior surfaces of the home, especially the basement, and the homeowners concern for potential health effects until these contaminants are identified. Bioaerosol samples were collected on each floor, with an emphasis on the basement, where most of the visible mold was noticed, and surface samples and carpet dust were also sampled at specific locations. An outside bioaerosol sample was collected for comparison and control purposes, as required by the methodology. In addition to the observations noted in the Executive Summary above, the basement of the house had a noticeably musty odor, with visible mold on many of the observed surfaces. There were also a number of visible wet spots in the basement, primarily on the walls. It was observed, that the most of the interior surface of the below grade (underground) foundation walls were covered first with a layer of tar paper, then with fiberglass insulation between studs, then with the wood paneling. This does not prevent moisture from entering the basement. What this type of wall treatment does do is slow evaporation preventing the walls from drying, allowing excessive mold growth behind the walls and by letting the moisture into the basement, increases the relative humidity throughout the basement making mold growth possible almost anywhere in the basement.

Scope of Work

A series of samples were collected in the residence located at 354 Timber Road, Mt. Gretna. The purpose of this sampling was to characterize the potential biological contamination in the home following the finding of visible mold inside the home. The samples were collected at several locations throughout the home. Sampling types consisted of airborne biological contaminants (Bioaerosols), collected with an Andersen N6 impaction sampler and Sabouraud's Dextrose Agar (fungal samples). Surface samples were collected with sterile biological transfer swabs. Two carpet dust samples was collected from a 1 square foot area, using 25 mm filter cassettes with 0.45 micron pore size membrane filter and a high volume air pump. Air sampling locations

Relative Humidity and Temperature Results

Location	Relative Humidity (RH%)	Temperature (°F)
Outside House	50 %	79
Living room	52%	75
Basement	71%	70

Results

The outside bioaerosol counts should, in general, always be higher than the inside counts. This situation will occur, if there is a normally functioning ventilation system and if other circumstances effecting bioaerosol growth are in an acceptable range. An acceptable range of circumstances would minimize fungi and bacteria growth – such as clean and dry conditions; an unacceptable range of circumstances would help to maximize fungi and bacteria growth – such as dirty and damp or wet conditions.

If windows are open for ventilation, and air exchange is occurring, the counts should be approximately the same, but generally no higher inside than outside and the genera and proportions should be similar. If there is a situation leading to interior amplification of bioaerosol numbers, it should be readily apparent from the counts and proportion comparisons of the different genera of organisms. If the only source of fungal contamination was the outside air, then proportions of fungi in all of the samples inside or out would be comparatively similar. The proportions were determined to be significantly different during this sampling.

The presence of an organism in an interior sample and not in the exterior sample requires either active growing colonies of the organism or a reservoir of viable spores to be present in the building. For this apparent amplification to be possible, several requirements must be met or have been met at some time in the recent past. They are as follows: a substrate or growth media, appropriate temperature conditions, and adequate or excessive moisture. Normal dust and dirt are generally adequate to serve as a minimal growth media, but carpeting and the dirt it traps is even more favorable for growth. Virtually any surface in a home has an adequate source of nutrients for fungal growth to begin and occasionally the fungi can colonize the substrate (such as paneling). Over time the available nutrients on surfaces tend to increase through deposition such as cooking oils which became volatile when heated, or from application, such as cleaning agents. It is well documented that virtually any surface will have adequate nutrition for fungi to begin growing. Relative humidity percentages of greater than 60% are adequate for some fungal growth to begin, but higher humidity makes it more likely, and damp or wet surfaces will be ideal for growth. The RH% values make it clear, that at the time of sampling, the interior of the basement of the house was more humid than the outside air. This helps to create an ideal condition for mold and fungi growth.

The living room air sample (005) was lower in total counts then the outside sample, and the species present and the proportions of different fungi were similar to the outside sample for 2 out

of 3 organisms. The additional fungi is present in the basement in elevated numbers, and the quantities found in the living room for this fungi could easily be explained by normal air movement in the house, even with the basement door closed. The basement air sample (003) was much higher in total counts than the outside sample (007), and the species present and the proportions of different fungi were also significantly different from the outside sample indicating the presence of single or multiple repositories of growth and/or amplification points. This conclusion was supported by the readily visible fungal growth found in the basement and the laboratory results, which confirmed this as well.

The carpet samples in both the living room (006) and the basement (004), indicate contamination by a variety of fungi. However, the basement carpet represents a potential respiratory hazard. The living room carpet results, while indicative of contamination, appear to be controllable by HEPA vacuuming and aggressive carpet cleaning, disinfection and rapid drying. Every effort should be made to control excess moisture in this home. As noted above, the basement carpet is significantly contaminated and is very possibly the primary source contributing to the high air counts found for both *Aspergillus* and *Penicillium*. As we recommended during our sampling visit, this carpet should be disposed of. The living room carpet is by itself unlikely to produce substantial airborne bioaerosols unless it is aggressively disturbed as with vacuuming using a non-HEPA filtered vacuum, or if the carpet was allowed to become damp or wet for an extended period. This could occur if the carpet was cleaned and not quickly and thoroughly dried. As we recommended during our sampling visit, only a HEPA filtered vacuum should be used in a carpeted home or area with allergens present and allergy sufferers in residence.

No bioremedial efforts will be successful if the moisture levels remain elevated. Even though the living room air samples have lower total fungal counts than the outside sample, there are a number of species of concern from an IAQ and allergen perspective. The living room air sample (005) contained mostly *Cladosporium*, which is considered a fairly mild allergen and is the predominant fungi in the outside sample. This sample also contained a low number of *Aspergillus* sp., a genus with generally stronger allergen effects and a similar count of *Penicillium* sp., generally considered somewhat less allergenic than the *Aspergillus* sp. and also in low numbers. The basement air sample (003) had a much higher count than the outside sample and more significantly, the predominant fungi was *Penicillium* sp., not *Cladosporium* sp. as in the outside sample, indicating a significant reservoir of *Penicillium* in the basement. In fact, the basement sample did not have any detectable *Cladosporium* sp., but the presence of any *Cladosporium* may have been masked by the other growth. The remainder of fungi in the basement air sample was *Aspergillus* sp., also in significantly high but somewhat lower numbers than the *Penicillium*.

A swab sample (001) was collected from the basement wall paneling on the outside of the bathroom (not an exterior wall, adjacent to the foundation, but an interior wall). This sample was collected due to the possible appearance of fungi growth on that surface. This surface coating was a dusting, of light gray to green in color. The lab results indicate a significant presence of *Stachybotrys* sp. fungi spores on that surface. The fungi growth observed on the wall surface did not have the characteristic appearance of *Stachybotrys* (black and moist) and the paneling did not appear to be at the time of the sampling or to ever have been wet to the extent normally

associated with *Stachybotrys*. The paneling in this area was dry and unstained. The second swab sample collected in the basement (002) was sampled from the wet foundation wall, after lifting up a section of the tar paper that presently covers most of the below grade interior wall surface. This sample had a very similar proportion of *Stachybotrys* and *Aspergillus* to the other wall sample. This sample also had one additional fungi (*Mucor* sp.), which prefers wet conditions.

Conclusions

There were noteworthy indications of fungal contamination in this house. The fungi found are of significant concern from an allergen aspect, dependant on the sensitivity of the exposed person. These levels could possibly be at symptomatic concentrations, if the exposed person is, in fact, sensitive to these species. As noted above, conditions are adequate for additional growth to occur, with the elevated RH% and the existing surface growth, which could substantially increase the exposure risk for a susceptible individual, such as an asthmatic. Appropriate medical testing on the occupants by qualified medical personnel could assist in determining the susceptibility of these individuals. Based on the observed and confirmed surface growth of *Aspergillus* and *Penicillium* (carpet) in this home, and the non-typical presence of *Stachybotrys*, it would be prudent to limit occupancy by individuals known to have a physical condition aggravated by fungal contamination. At least until corrective actions have been completed and the effectiveness of these actions confirmed by follow-up testing.

Some fungi of the genus *Aspergillus* are opportunistic pathogens in susceptible immuno-suppressed individuals (HIV or AIDS patients, organ transplant patients, chemotherapy patients and diabetics are some examples of these). The levels of contamination found in this residence should be controlled with aggressive means to prevent any increases, reduce the existing populations and return the interior populations to the ideal of a reduced version of the exterior populations. The amount of surface fungi present could under existing conditions of growth produce a substantial airborne allergen count in this home, especially as the season requires that the windows be closed, thus reducing the air exchange of this house. So far, based on the sampling, there does not appear to be an excessive transfer of allergens to the first floor from the basement. As noted in the air samples, despite the presence of *Stachybotrys* in the basement, there was none detected in the basement air sample. *Stachybotrys* is usually not detected in air samples due to the normal state of the spores (wet and sticky).

It is obvious from the inspection observations and the lab results that this home and specifically the basement were at the time of sampling significantly damp and contaminated with a variety of allergenic fungi. The susceptibility of the occupants to these allergens and the quantities present are the deciding factors in how the occupants will react to this exposure.

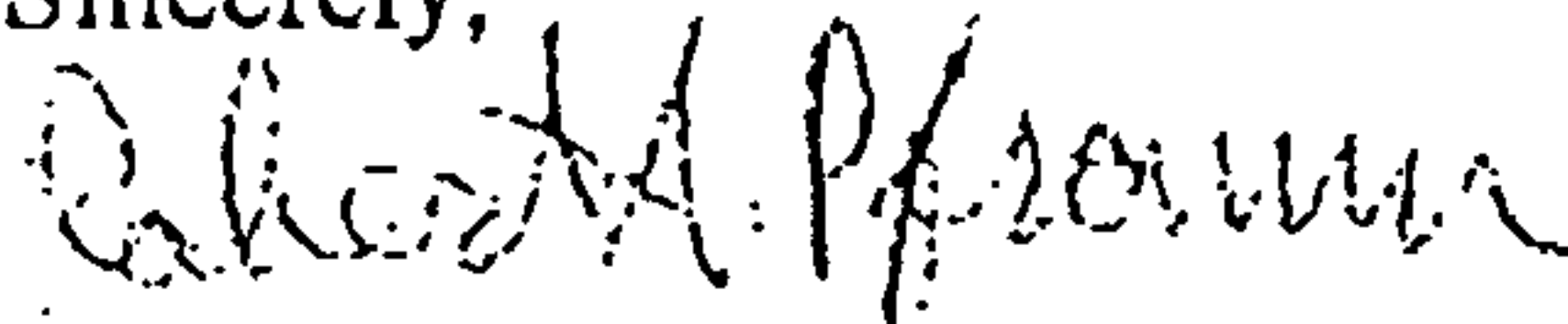
It is essential that the moisture problems with the basement foundation be corrected and that steps be taken to reduce relative humidity levels in the basement and in the main portion of the house. Based on observations, the carpet in the living room is also a very likely source reservoir of some of the airborne concentrations. Controlling moisture is the primary method of controlling mold, fungi and bacteria in a residence. Additional aggressive cleaning (with HEPA vacuums) and disinfection may be needed.

Recommendations

- 1.) Until the presence of the elevated fungal growth, specifically *Stachybotrys* and *Aspergillus* sp., is reduced or removed, occupation of the basement of this home would generally not be recommended.
- 2.) Until other steps can be taken, we strongly recommend that all vacuuming of carpets and furnishings done in this home, only be done with a true HEPA filtered vacuum cleaner.
- 3.) Install a dehumidifier (more than one if necessary) in the basement permanently and operate a unit in the main occupied area of the house when humidity is high.
- 4.) Portable HEPA filtration units can be used in occupied rooms to further reduce airborne allergens of all types, if needed.
- 5.) Redirect all downspouts so that flow of rain water from the gutters does not directly contact the side of the foundation or saturate the ground directly adjacent to the house. This recommendation also applies to the sump pump discharge.
- 6.) Sample additional locations in the basement to localize contamination sources there and to determine extent of remediation or precautions required for use and occupancy.
- 7.) Evaluate additional waterproofing methods for the foundation (exterior or interior methods), many options are available.
- 8.) It may be of value to have the entire house "fogged" with a biocidal disinfectant (several types are available) to eliminate viable free floating fungal spores, and to eliminate surface contamination on walls and hard surfaces. This process would not eliminate contamination from carpets or furnishings, as spores may be deep into the pile or fabric. Fogging will also not control the growth of fungi behind the "tar paper" water proofing in the basement. Further bioremediation suggestions are possible. The use of Ozone treatment systems is generally not recommended to control fungi and bacteria due to inconsistency of treatment, inability of the Ozone to penetrate porous materials, questionable effectiveness under different circumstances and the known toxicity of Ozone (OSHA limit of 0.1 ppm). The EPA has a great deal of information on this application and does not recommend it.
- 9.) The basement "waterproofing" should all be removed and the walls disinfected. More effective true waterproofing methods should be implemented to dry the basement. These methods may include any of the following: foundation exterior application of waterproofing agents with drainage tile; interior drainage of the block wall with interior application of a waterproofing material; in either case, dehumidification will be necessary.

These recommendations may not be in order of urgency, as we feel all may be necessary to complete the control of the contamination in this residence. We would be pleased to discuss these recommendations further. If you have any questions in reference to this report, please contact us at your earliest convenience.

Sincerely,



Robert A. Pfromm, CIH
Project Manager
Advanced Applied Sciences, Inc.

APPENDIX 1



LABORATORY REPORT

CLIENT PROJECT INFORMATION

Client Name: Marrone
Address:

Project Manager: Robert Pfromm, CIH
Project ID: 2008116
Project Number:
Telephone:
Fax:

LABORATORY PROJECT INFORMATION

Project Number: 2008106
Project Manager: Robert J. Lesher, Ph.D.
Quote Number: NA
Invoice Number: NA

Date Received: 8/28/00
Due Date: NA
Date Completed: 9/10/00

LABORATORY RESULTS

FIELD SAMPLE ID	Sample Type	LOCATION DESCRIPTION	RESULT	ISOLATE	UNITS
82800-001	Wipe, 1sq. in.	Basement Wall 1	>300 36	<u>Fungal Isolates</u> Stachybotrys sp. Aspergillus sp.	CFU/in ²
82800-002	Wipe	Basement Wall 2	276 40 6	<u>Fungal Isolates</u> Stachybotrys sp. Aspergillus sp. Mucor sp.	CFU/in ²
82800-003	Air, 85 liters	Basement	3192 1116	<u>Fungal Isolates</u> Penicillium sp. Aspergillus sp.	CFU/m ³
82800-004	Vac, 144 sq. in.	Carpet Basement	>3000 1300 90	<u>Fungal Isolates</u> Penicillium sp. Aspergillus sp. Alternaria sp.	CFU/in ²
82800-005	Air	Living Room	180 24 24	<u>Fungal Isolates</u> Cladosporium sp. Aspergillus sp. Penicillium sp.	CFU/m ³

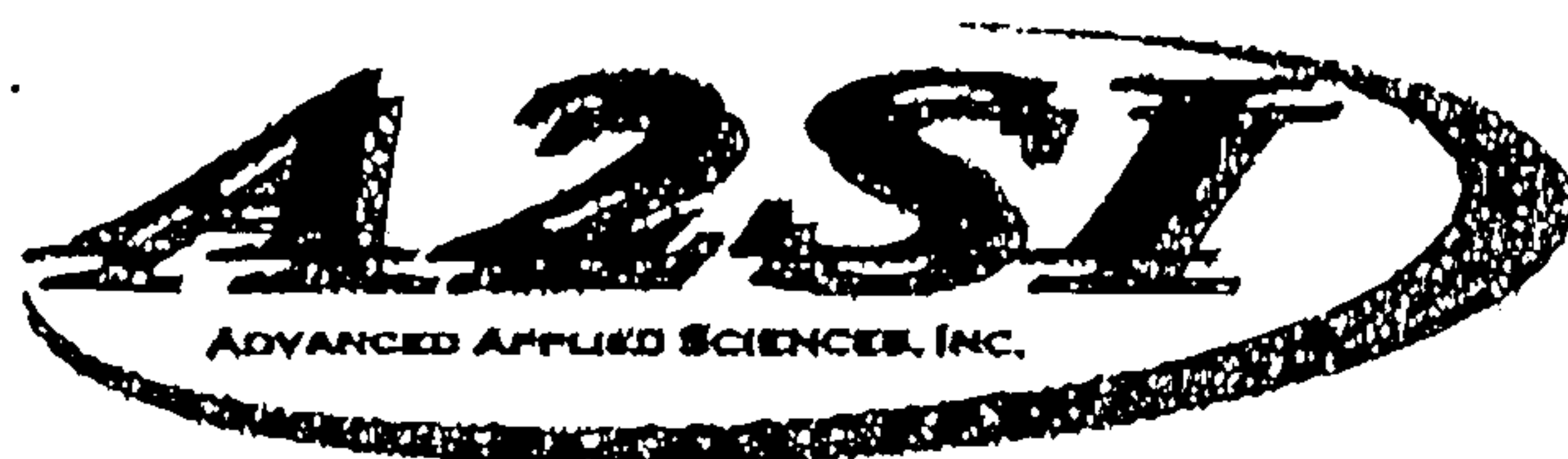
Advanced Applied Sciences, Inc.

Project Number 2008106

Page 1

CORPORATE HEADQUARTERS
4400 LINGLESTOWN ROAD ♦ HARRISBURG, PA, 17112

TELEPHONE: (717) 651-9377
FAX: (717) 657-0752



LABORATORY RESULTS

FIELD SAMPLE ID	Sample Type	LOCATION DESCRIPTION	RESULT	ISOLATE	UNITS
82800-006	Vac, 144 sq. in.	Carpet, Living Room	920 310 60 31	<u>Fungal Isolates</u> Penicillium sp. Aspergillus sp. Chrysosporium sp. Epicoccum sp.	CFU/in ²
82800-007	Air	Outside	468 60 60	<u>Fungal Isolates</u> Cladosporium sp. Epicoccum sp. Penicillium sp.	CFU/m ³

Laboratory Report Approval

Approved By: _____

[Signature]
Robert J. Leshner, Ph.D.
Laboratory Director

Date Approved: _____

9/15/02

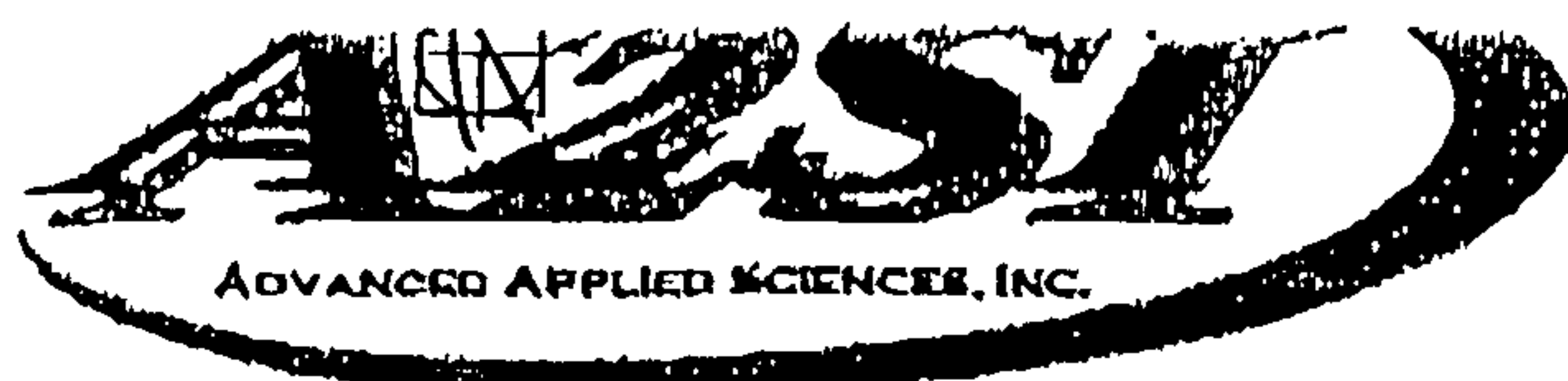
Advanced Sciences, Inc.

Project Number 2008106

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CORPORATE HEADQUARTERS
4400 LINGLESTOWN ROAD ♦ HARRISBURG, PA, 17112

TELEPHONE: (717) 651-9377
FAX: (717) 657-0752



Chain-of-Custody Sample Submittal Form

CLIENT:

2008106

Page of

PROJECT:

DUE:

LAB QUOTATION		CLIENT REPORT TO AND PROJECT INFORMATION		LAB NO:	
Company	AAS	Project Name	MARONE	Analysis Requested	
Contact	BOB PFROMM	Project No	2008116		
Address		P.O.			
		Telephone			
		Fax			
Turnaround Time: <input checked="" type="checkbox"/> 5-10 Days <input type="checkbox"/> Rush (Specify) _____					
Lab ID	Sample ID	Sample Matrix	Sample Size	Volume (L)	Area (sq ft)
-001	BASEMENT WALL 1	✓	8200	1	✓
-002	BASEMENT WALL 2	✓		1	✓
-003	BASEMENT AIR	✓		85	✓
-004	CARPET DUST BASEMENT	✓		144	✓
-005	LIVING ROOM	✓		85	✓
-006	CARPET DUST LVRM	✓		144	✓
-007	OUTSIDE	✓		85	✓

INVOICE (Not to be filled in by client)		CLIENT COMMENTS/SPECIAL INSTRUCTIONS	
Client			
Address			
Phone			
Fax			

Submitted By	Date	Time	Accepted By	Date	Time
Robert Pfromm	8/28/02				
Revised By	Date	Time	Accepted By	Date	Time
Revised By	Date	Time	Accepted By	Date	Time
Robert Pfromm	8/28/02			8/28/02	

NOTE: Rush TAT must be pre-arranged. Surcharges will be applied accordingly.

ADVANCED APPLIED SCIENCES, INC.
4400 LINGLETOWN ROAD ♦ HARRISBURG, PA, 17112

TELEPHONE: (717) 651-9377
FAX: (717) 657-0752

included the basement, the first floor living room, and an outside sample for comparison and control. Surface samples were all collected in the basement, from suspected visible mold, and carpet dust was collected from the carpet in the basement and in the living room. Actual fungal ID's and counts were detailed in the lab report (Attached Appendix A).

This indoor air quality survey was performed within the scope of work and in accordance with chosen professional standards and guidelines, and in accordance with known applicable regulatory requirements and guidelines. The sample collection, laboratory analyses, data reduction and calculations, interpretations, and evaluations were performed accurately to the best knowledge of A2SI. A2SI assumes no liability for financial or health consequences from the actions or lack of actions taken by the Marrone family, or others, as a result of this report. All collected data, observations, conclusions, and recommendations presented in this report were influenced by the conditions which existed at the time of the survey and sample collection, and are representative of those conditions existing at the time of sampling and in the location sampled.

Sample Locations

Sample ID Number	Sample Type	Location
82800-001	Surface swab -- Mold and Fungi	Wall in basement
82800-002	Surface swab -- Mold and Fungi	Wall in basement
82800-003	Air Sample - Mold and Fungi	Basement air
82800-004	Carpet dust -- Mold and Fungi	Carpet dust in Basement
82800-005	Air Sample - Mold and Fungi	Living room air
82800-006	Carpet dust -- Mold and Fungi	Carpet dust in Living room
82800-007	Air Sample - Mold and Fungi	Outside air

Sample Results Summary

Sample ID Number & Type	Total Fungi -- CFU/unit
82800-001 Surface swab --	>336 CFU/in ²
82800-002 Surface swab --	322 CFU/in ²
82800-003 Air Sample --	4308 CFU/m ³
82800-004 Carpet dust --	>4390 CFU/in ²
82800-005 Air Sample --	228 CFU/m ³
82800-006 Carpet dust --	1321 CFU/in ²
82800-007 Air Sample --	588 CFU/m ³

CFU/in² - Colony Forming Units/square inch; CFU/m³ - Colony Forming Units/cubic meter
Detailed Bacteria and Fungi results are found in Appendix 1

EXHIBIT “L”

09/13/2002 FRI 16:15 [TX/RX NO 5379]

Multi-Spec

Home Inspection Services

421 Redgate Rd. Sewickley, Pa. 15143

Fax (412) 741-5465

Bus. (412) 749-0626

INSPECTION REPORT 8-12-02

Prepared for:

*Gianni Floro
Tarasi, Tarasi & Fishman, P.C.
510 Third Avenue
Pittsburgh, PA 15219-2191*

Prepared by:

Tom Moore

8-31-02

[6239 ON XR/XL] 91:91 IRI 2002/31/60

Purpose of the Report

An inspection was done on August 12, 2002 at a residential property at 354 Timber Road, Mt. Gretna, PA. The purpose of the inspection was to examine the house for moisture and water problems that possibly may have contributed to a mold and mildew condition resulting in the occupants having to move out of the house.

Current Conditions

Weather was clear, temperature in the 80's. Electric was off and could not operate the water since the source was a well and power is needed to operate the pump.

Observations and Findings

The house is a single story ranch style house with a full basement and integral garage underneath. The exterior and grounds inspection found some low areas and negative slope at the front and sides. (photos 5, 7, 8, 9, 10) The ground should be graded to slope away from the house so surface water is diverted. The gutters were found to have leaves and debris in them and they need to be cleaned out. The front center downspout had black corrugated piping attached to it to carry the discharge water around the side and to the rear of the house. (photo 4) The driveway slopes toward the garage and has inadequate drainage in front of the door. (photo 15, 16) There was evidence of water entering under the garage door and path way into the garage. (photo 29) Proper drainage needs to be installed to handle all rain conditions. The right rear downspout was smashed almost closed and needs to be repaired.

The house is currently vacant and has been for approximately 2 years.

The first floor of the house had no evidence of mold or mildew growth.

The basement had remnants of a drywall ceiling that had been removed and the fiberglass insulation is still in place. (photo 26) The front wall of the basement had 2" x 4" studs and fiberglass insulation in place from the left front corner to approximately the middle of the front wall. Between the insulation and the block foundation was a layer of black roofing paper. The wall studs at the center of the front wall had areas of rot. Some studs were rotted significantly on the vertical areas indicating a wetting and drying scenario over a period of time. (photo 48) The bottom wall plate was black and moisture saturated. This condition was on the back half of the base plate, the front half looked normal. The bottom was not rotted since the wood appears to stay wet or saturated. (photo 47, 48) The rear basement wall and right end partition wall still had paneling on it, which was warped due to dampness and humidity. (photo 37, 38, 39) The worst warpage was at the right rear corner of the finished area. There was evidence of small pipe leaks at the copper water line joints in the ceiling. (photo 43, 44, 45, 46, 52) There was also evidence of condensation and sweating of the copper water lines which had been above the drywall and under the ceiling insulation. The indications were dark staining of the insulation above the pipes and rusting pipe supports. (photo 45, 46) The areas affected appeared to increase in the amount of the rust and staining as you move

toward the center of the area at the right rear corner of the finished area. (photo 37) There has been references of a hot tub being located at one time in this area. The storage area of the basement at the right end (photo 40, 41, 42) had current mold and mildew on the walls and paneling and efflorescence on the block indicating moisture migration through the block from the outside.

Conclusions

The finishing of the basement was incorrectly done. The vapor barrier (felt paper) was applied to the block wall. The correct method would have been to have the vapor barrier between the interior finished wall (drywall or panelling) and the insulation so that warm, moist air is stopped before entering the wall cavity. In this house, the warm, moist air was condensing on the felt paper and then running down the wall. Also, any exterior surface water migrating through the wall was also stopped by the felt paper and would run down to the bottom of the wall which would account for the saturated condition of the bottom wall plate. The presence of a hot tub in a basement without proper ventilation and dehumidifiers would contribute to humidity and temperature conditions needed for mold and mildew growth. Finally, there is evidence of leakage at the water pipes above the basement ceiling which would also have contributed to mold and mildew growth. Mold and mildew need moisture, warm temperatures, and a food source on which to grow. In this basement, the moisture was readily available from any number of sources outside surface water leaking through the foundation walls; leaking water supply pipes, and the use of a hot tub indoors. The food source was the framing, drywall, and panelling. These conditions from the photographs I examined existed at the time the photographs were taken. All my opinions are based upon a reasonable degree of home inspection certainty.

Tom Thore

[6'239 ON XR/XL] 51:91 IRI 2002/31/60

Multi-Spec

Home Inspection Services

421 Redgate Rd. Sewickley, Pa. 15143

Fax (412) 741-5465

Bus. (412) 749-0626

Jack Marrone, husband, Karen Marrone, wife both individually and in their capacity as parents and natural guardians for Vida Marrone, a minor, and Matthew Adam Marrone v. Allstate Insurance Company, Linda M. Edleman, Fred Shafer, Mt. Gretna Realty and House Masters.

REFERENCES:

- 1) *A copy of the Amended Complaint in Civil Action;*
- 2) *a copy of the Housemaster Express Report;*
- 3) *a copy of the Advanced Applied Sciences Report;*
- 4) *a copy of the photographs of the Marrone's House (Lower Level) after the mold infestation took place;*
- 5) *a copy of the Seller's Disclosure Statement;*
- 6) *a copy of the video tape deposition of Chuck Berthoud, the Housemaster home inspector;*
- 7) *relevant portions of the materials that were attached to the home inspection report.*

[6Z3S ON XR/XL] SI:9I IRL 2002/CI/60

Tom Moore
 Multi-Spec
 421 Redgate Road
 Sewickley, PA 15143
 (412) 741-3256

HIGHLIGHTS OF QUALIFICATIONS

- * Certified Pest Control Operator in PA
- * Qualified through EPA for Radon Testing
- * Certified by Building Officials and Code Administrators (BOCA) to perform one and two family dwelling and combination commercial inspections

EMPLOYMENT HISTORY

May 1990 to
Present

Multi-Spec, Sewickley, PA
 Business Owner, Home Inspection & Pest Control
 Founded residential home inspection business, including radon, water quality, well-flow, and septic dye testing, as well as termite inspection and pest control
 Responsible for determining general repair costs

Feb. 1982 to
Mar. 1990

Trapp Construction, Sewickley, PA
 Construction Crew Leader
 Oversaw construction crews in new home construction and remodeling

Dec. 1972 to
Dec. 1981

Bravo Corporation, Neville Island, PA
 Fitting and Welding Foreman
 Supervised fitting and welding crew of twenty men in the construction of barges and towboats

EDUCATION

Property Inspector's Training Institute
 Fort Washington, MD
 Certificate in Property Inspection, May 1990
 Intensive training in all areas of home inspection

Community College of Allegheny County
 Pittsburgh, PA
 Certificate in Heating/Air Conditioning, May 1983
 GPA: 3.2

Alliance College, Cambridge Springs, PA
 21 credits in Liberal Arts, May 1970

PROFESSIONAL ORGANIZATIONS

Member, American Society of Home Inspectors (ASHI)
 Member, Building Officials and Code Administrators (BOCA)

REFERENCES

References available upon request

EXHIBIT “M”

**MICHAEL G. HOLLAND, MD, FACMT, FACOEM, FACEP
OCCUPATIONAL AND ENVIRONMENTAL TOXICOLOGY CONSULTING**

Attorney John Flounlacker
305 North Front Street Sixth Floor
PO Box 999
Harrisburg, Pennsylvania 17108
September 11, 2002

Re: Marrone, Jack

Dr. Mr. Flounlacker,

I had the opportunity to examine Jack Marrone in my office at the Lancaster General Health Campus in Lancaster, Pennsylvania on August 21, 2002. He was accompanied by his family as well as their attorney, Gianni Floro, who tape-recorded the entire session. The history and exam were all done in the same room with all family members and Mr. Floro present, and all had input that formed the basis of the history obtained.

My conclusions on this exam, given with a reasonable degree of medical certainty, are that Mr. Marrone's health problems are not due to exposure to the indoor air environment at the residence at 354 Timber Road, Mt. Gretna, Lebanon, PA. Specifically:

- 1) Mr. Marrone claims memory loss that happened when he started abating a moldy environment in the basement of the house on Timber Road. He has more trouble with short-term memory, repetitive questions and tends to give strange answers his family claims. It is not better since he has been out of the house. This clearly is not related to the mold exposures, and likely is related to his PTSD and/ or depression.
- 2) Similarly he complains of severe fatigue, decreased energy, depression and being tired and no ambition. This is not related to mold exposure, and more likely is due to his pre-existing PTSD.
- 3) He also complains of itching on the dorsum of his arms, picking at it and dry itchy skin. Examination reveals he has neurodermatitis (lichen simplex chronicus), a mostly psychological condition caused by chronic scratching. It is not related to any mold exposure.
- 4) He also has a 2.5 cm growth on his adrenal gland, which is not related to this mold exposure.
- 5) He also complains of itchy watery eyes and burning. This happened when he was in the house on Timber Road, and has continued since he moved out. Similarly sneezing spells, 20-30 times each, which has gotten a little better since being out of the house, but still has problems with this. Since these problems persist, they are not related to mold exposure, and are more likely due to his chronic cigarette smoking.
- 6) He also has trouble breathing on and off, and got short of breath when he wore the paper mask when he did the abatement. He claims he never saw a doctor for this shortness of breath, but still complains of trouble breathing even since moving out of the house in question. His medical record documents pulmonary clinic visits for shortness of breath and dyspnea on exertion in 1998, predating any mold exposure in the house in question. This is due to his years of heavy cigarette smoking and the development of COPD (emphysema), and is not due to mold exposure.
- 6) He also complains of sexual dysfunction and depression and doesn't have as much interest in sex. This is not due to his mold exposure and is likely due to depression and PTSD.

COMPLETE HISTORY AND PHYSICAL EXAMINATION: (history obtained from patient and family interview as well as supplied medical records)

ID: Mr. Marrone is a 56 yo male.

CC: Various health effects due to mold exposure

HPI: Mr. And Mrs. Marrone state that they bought a home at 354 Timber Road in Lebanon, PA in August of 1999, and lived there until October of 2000. They noticed when they first purchased the home that a piece of pegboard in the basement was discolored and they mentioned this to the home inspector. During their time living in the home they didn't notice any significant health problems until July or August of 2000. At that time, they left the home closed up for a little over a week while they took their son to school in Missouri. When they returned home the entire basement had a "green fuzzy growth" all over the ceiling stucco, the wall paneling, and the pegboard. They did not notice any leaks or any standing water but their attorney showed me some

NAME: Marrone, Jack
MICHAEL G. HOLLAND, M.D.
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black and white photocopies of some photographs of these walls. I was unable to make out any details because of the poor quality, but they tell me that these showed a lot of mold growth. They also noticed that it smelled musty, so they called the insurance company. They also notified their real estate agent from whom they purchased the home, who recommended contacting the US Environmental Protection Agency and the State Health Department. The Health Department gave them a list of labs that could perform mold testing, and they eventually hired A2SI to do the environmental testing. They performed swabs and air sampling for about one hour on one single visit to the house on Timber Road in August of 2000. The family tells me that they found *Aspergillus* and *Penicillium* as well as *Stachybotrys*. Mrs. Marrone says that the person from A2SI who performed the testing told her that there could possibly be some health problems from these types of molds. The lab told them that they would get back to them when the results were available. However, about one month later there was no word from A2SI, so Mrs. Marrone telephoned them. She claims that he recommended sealing off the entire lower level, and getting a biohazard team in to perform an abatement of the area. However, her husband was already in the process of ripping out all of the drywall and the paneling. He was told to stop it and seal it off and get out of the area. Mr. Marrone tells me that when he pulled away the paneling from the walls he noticed water-stained blocks at the front of the home. They began moving out immediately that day on September 19, 2000. They packed up their belongings, and moved out completely on October 14, 2000, and have not been back since.

Mr. Marrone complains of memory loss that happened when he started abating the moldy environment in the basement. He states it is not any better since he has been out of the house. He has more trouble with short-term memory, and has trouble answering questions, and sometimes asks repetitive questions and tends to give strange answers, his family claims. In fact, they all laughed and joked about it during the interview, including Mr. Floro. He also complains of fatigue, decreased energy, depression and being tired and no ambition. He states he used to like to work in the yard and always did physical things. Now he has no "oomph". He states this all started after this mold exposure and it has not improved since removal from the exposure.

Mr. Marrone also complains of itching on the skin, mainly on his forearms, which he never had until experiencing this mold exposure at his residence at Timber Road. He states it constantly causes him to pick at his skin. He states he now has dry itchy skin, and this has not improved since moving out of the residence in question. He shows me the areas in question on his forearms and his shoulder. He has not seen a dermatologist for this.

Mr. Marrone had a CT scan done in Missouri and a 2.5 cm mass on his adrenal gland was discovered. It was recommended that he have a repeat CT scan specifically focusing on the adrenal gland to rule out malignancy. He attributes this to his mold exposure as well.

Mr. Marrone also complains of itchy, watery eyes, and burning in his eyes. This happened when he was in the house on Timber Road, and has continued since he has been out of the house. Similarly, he complains of sneezing spells which, when they come on, cause him to sneeze about 20-30 times each attack. He says that it has gotten a little better since being out of the house, but still has problems with this. He also has trouble breathing on and off with exertion, and got short of breath when he wore the paper mask when he performed the abatement in his basement. He states he never saw a doctor for this, but he still complains of trouble breathing even since moving out of the house in question.

He also complains of sexual dysfunction, in that he is depressed and doesn't have as much interest in sex.

PAST MEDICAL HISTORY: Mr. Marrone's past medical history is significant for: he is a 100% disabled combat veteran from the Vietnam War, 50% of his disability is from post traumatic stress disorder (PTSD), 30% from chloracne due to Agent Orange exposure, 10% due to a gunshot wound to the finger and he has shrapnel in his leg. He also was diagnosed with COPD, which was discovered 2-3 years ago, and he also has prostate problems, and is on medication for this. He also has a history of diabetes, but not taking medications for this. He denies any history of asthma. There is no history of hypertension.

RECORD REVIEW: Review of his VA records shows a pulmonary clinic visit 2/26/1998 for follow-up on,

NAME: Marrone, Jack
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COPD, sleep apnea. They document a 60 pack-year history of cigarette smoking (1.5 ppd X 40 years) and he had c/o shortness of breath, daily productive cough, and dyspnea on exertion at that time. Another pulmonary clinic visit on 2/25/1999 documents that a sleep study to evaluate his sleep apnea is still pending. He had a clinic visit on 6/29/1998 for epididymitis and prostatitis, with benign prostatic hypertrophy (BPH). He had dermatology clinic visits on 11/20/1998 and 12/7/1998 for chloracne follow-up and evaluation of lesions on his penis. He had a routine clinic visit on 4/16/1999, and this progress note documents his complaints of fatigue, tiredness. It also mentions productive cough. Another note of 5/03/1999 shows he had c/o cough and abdominal pain.

Pulmonary function tests performed on 2/25/1999 reveal a reduced FEV₁ and reduced FEV₁/FVC ratio, consistent with COPD. His lung volumes document air trapping, consistent with COPD and emphysema. Repeat PFT's on 1/28/2002 reveal similar obstructive defect. High resolution CT scan of the chest and abdomen done on 4/16/2002 revealed emphysema of the lung apices, with scarring, and some small densities in the left lung that need repeat scanning in 3 months to evaluate stability. The abdomen revealed fatty infiltration of the liver, and the adrenal mass.

Blood tests from 4/16/1999 document the hyperglycemia, but his glycosylated hemoglobin was in the normal range on 10/31/2000. Fungal antibody testing was negative on 2/12/2001.

MEDICATIONS: His medications include Terazosin 1 mg p.r.n. for prostate, Minoxidil 10 mg daily, Albuterol and Combivent inhalers.

PAST SURGICAL HISTORY: He had a cyst on his scrotum removed in 1997 probably due to Agent Orange exposure.

SOCIAL HISTORY: He denies alcohol use. He claims he smokes one pack of cigarettes per day for about 38 years and continues to smoke now. He was a tractor-trailer driver for 25 years and he stopped this in 1993. Prior to that he sold life insurance, and he is currently 100% disabled veteran from the Vietnam War.

FAMILY HISTORY: He denies any significant family history.

PHYSICAL EXAMINATION: Alert and oriented x 3, no distress, pleasant white male, who appears to be his stated age of 56 years old. HEENT: NCAT. PERRLA. EOMI. There is no nystagmus, no scleral icterus. Ears: TMs clear bilaterally. Nose is clear. Throat clear. Uvula midline. Neck is supple, no meningeal signs, no lymphadenopathy. Chest is clear to auscultation and percussion. There are no rales, wheezes or rhonchi. There is no wheezing with forced expiration. Heart: Regular rate and rhythm without murmurs, gallops or rubs. Abdomen is soft, non-tender, no guarding, no rebound, no masses, no hepatosplenomegaly. Extremities show no cyanosis, clubbing or edema. There are good peripheral pulses. Neurological exam: Cranial nerves II-XII within normal limits. Motor, sensory, station and gait all within normal limits. He is able to walk on his heels and his toes independently. He can hop on each foot, can do a deep knee bend, can bend over and touch his toes. Range of motion of his shoulders, arms and hands are normal. His grip strengths are equal bilaterally. Rhomberg's test is negative. Skin exam shows typical neurodermatitis lesions consisting of granulating, flat, erythematous lesions confined to the dorsum of both forearms bilaterally and also the back of his right shoulder. Close examination of his neck, face and shoulders show no evidence of chloracne. He does have some acne pitting scars on his face, but these appear to be remote. Abdomen: questionably enlarged liver, about 2 cm below the right costal margin and the epigastrium. He was slightly tender to palpation in the epigastrium and in the right upper quadrant. He was also slightly tender in both lower quadrants to palpation but there is no guarding, no rebound and no masses.

SUMMARY: Mr. Marrone is a 56-year-old white male who had exposure to a moldy environment in his former residence at 354 Timber Lane in Lebanon, Pennsylvania from August 1999 until October of 2000. He attributes multiple health problems due to this mold exposure. Many of these, specifically memory loss, fatigue, itching on his arms, growth on his adrenal gland and sexual dysfunction are all clearly not related to any mold exposure. In fact his itchy rash on the dorsum of his arms is neurodermatitis, which is caused by continuous scratching of the skin. These lesions then are in a chronic state of healing, and the healing skin tends to itch, which causes people to continue to scratch these areas, setting up a vicious itch-scratch cycle. Mr. Marrone's rashes are in classic locations on the dorsum of the forearms and on the shoulders where patients can easily reach and repetitively scratch.

His symptoms of itchy, watery eyes, burning in the eyes, sneezing spells and trouble breathing can all be

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related to his cigarette smoking and his COPD. His medical record from the VA system documents these symptoms of cough and difficulty breathing were present prior to ever moving into the house at 354 Timber Road. People with emphysema (COPD) have decreased exercise tolerance and develop shortness of breath easily with exertion. He developed this lung condition from years of heavy cigarette smoking and not from any mold exposure. Some upper respiratory allergic symptoms can happen with mold exposure in persons who have allergies and are known to be sensitive to these molds. However, there is nothing in the medical record that documents that Mr. Marrone had any of these allergies and therefore I cannot attribute any of these to the mold exposure. The fact that they are still present after removal from the house in question supports that these are not related to the mold exposure.

Mr. Marrone's complaints of memory loss, difficulty concentrating, severe fatigue, depression and loss of interest in sex are not related to mold exposure. He has a 50% disability from the VA for PTSD, and this is most likely the cause of many of these symptoms. Depression related to PTSD can cause fatigue, poor memory, difficulty concentrating and loss of interest in sex. These symptoms are not due to any mold exposure. He also has a history of prostatitis, BPH, and lesions on his penis, which all predate his mold exposure, and could be contributing to his sexual dysfunction. His sleep apnea can also contribute to depression, fatigue, and lack of energy.

There has been a lot of press coverage recently regarding a myriad of health effects allegedly due to "toxic mold" exposure. Popular evening television "news magazine" shows have featured these stories. There is absolutely no credible scientific evidence that this is true. Some physicians are "believers" in this, although they are in a very small minority. They cite the evidence that many of these molds, when grown on appropriate foodstuffs or nutrient agar, have been shown to produce mycotoxins. These mycotoxins are known toxins, and some are considered potential chem-bio warfare agents. Some adverse health effects from these toxins are possible when contaminated food is ingested, or when inhalational exposure occurs to the purified toxins present in biowarfare bombs. They then make the error in logic that because these molds can produce toxins, and the molds are discovered in the homes of people with health problems, then these health problems have to be due to the molds. However, there is NO evidence that mold growing on drywall produces any of these mycotoxins to any significant degree, that they are in a bioavailable form, that it would be airborne in any significant quantity, or that it would be absorbed in any significant amount.

Certain immunocompromised persons, such as transplant recipients on immunosuppressive drugs, advanced AIDS patients, and cancer patients on chemotherapy, have an increased chance of getting a systemic fungal infection because they cannot fight off these fungi like those of us with normal immune systems can. They acquire these infections not due to high exposures, but because of their weakened immune systems. Obviously this does not apply to anyone in the Marrone family.

Molds are ubiquitous in all indoor and outdoor environments on this planet. They are everywhere- in the air, on our clothing, carpets, floors, walls, ceilings, and ductwork- everywhere. They perform a necessary function in the outdoor environment: they help degrade and decompose vegetable matter, such as leaves and trees, which returns nutrients to the soil, so that new plants can grow. This is why molds in outdoor air are higher in certain seasons, mainly springtime, when the snow melts and the leaves from the previous fall are wet and ready to degrade.

Molds need a source of nutrients on which to grow, they require a warm environment, and they need moisture. Water leakage or highly humid environments can promote mold growth, and carpet, drywall, and fiberboard paneling can have sufficient nutrients to support some mold growth. As mentioned above, molds are everywhere, and the right humidity and temperature will cause them to grow on virtually any environmental surface. This has been occurring since man has been living indoors, and continues today. To attribute varied health effects such as memory loss, cognitive dysfunction, visual impairments, neurodermatitis, and sexual dysfunction to exposure to a musty basement, which continues even after exposure ceases, borders on the ludicrous.

Sir Austin Bradford Hill, in 1965, wrote a landmark article regarding assessing causation of a disease.

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These principles still apply today. Among other criteria, there must be: 1) Strength of Association-the rate of increase in the disease in the population exposed to the purported causative agent; 2) Consistency- association observed by different investigators in different populations; 3) Specificity- the association is limited to people with specific exposures and to particular physiologic systems; 4) Temporality- the exposure precedes the disease; 5) Plausibility- is this exposure plausible, i.e., does it make sense? 6) Coherence- is this association consistent with known facts of the disease? As you can see, these principles are applicable only to allergic symptoms and mold exposures. Cognitive dysfunction, fatigue, poor memory, visual disturbances and other vague, unmeasurable, and purely symptomatic complaints fail to fulfill any of these criteria for a cause and effect relationship with the mold exposure. 1) Strength of Association: Since molds are ubiquitous, these diseases should be commonly seen in the innumerable people who have damp basements, and they aren't. 2) Consistency: No reproducible studies exist proving this association. 3) Specificity: These symptoms are not specific and encompass a multi-organ, multi-system involvement- gastrointestinal, respiratory, neurological, psychiatric, urological, dermatological, visual. 4) Temporality-The "disease" in this case (fatigue, shortness of breath) preceded the exposure, so the exposure couldn't possibly have caused the disease. 5) Plausibility- To propose that exposure to a moldy basement caused these vague, multi-system complaints simply doesn't make any scientific sense. It isn't plausible. 6) Coherence- This association between molds and these symptoms is not consistent with the known facts of the health effects of molds and the allergic symptoms they can exacerbate. Otherwise, we would be forced to believe then that exposure to cat dander and ragweed pollen can cause memory loss, poor cognition, depression, and sexual dysfunction.

The Institute of Medicine (IOM, part of the National Academies of Science) published guidelines in 1988 for confirming the diagnosis of an occupational or environmental illness. These four points include: 1) Are the findings explained by the suspected exposure? 2) Is the chronology appropriate? 3) Is there confirmation of exposure and quantification of the dose? And 4) Are there any other explanations for the illness? The answer to point # 1 is that the findings in this case are not explained by the exposure to the molds. #2 The chronology of the depression due to PTSD, and the dyspnea due to COPD, do not fit- these symptoms preceded the exposure, therefore the exposure could not have caused the illness. #3 There is no quantification of dose. #4 The symptoms and illnesses are adequately explained by other common causes (i.e. cigarette smoking, COPD, PTSD, depression, prostate problems). Therefore one has to conclude that this exposure did not cause these illnesses.

Thank you very much for allowing me to examine this interesting case.



Michael G. Holland, MD, FACMT, FACEP, FACOEM

DATE OF VISIT: 08/21/2002

EXHIBIT “N”

**MICHAEL G. HOLLAND, MD, FACMT, FACOEM, FACEP
OCCUPATIONAL AND ENVIRONMENTAL TOXICOLOGY CONSULTING**

Attorney John Flounlacker
305 North Front Street Sixth Floor
PO Box 999
Harrisburg, Pennsylvania 17108
September 11, 2002

Re: **Marrone, Karen**

Dr. Mr. Flounlacker,

I had the opportunity to examine Karen Marrone in my office at the Lancaster General Health Campus in Lancaster, Pennsylvania on August 21, 2002. She was accompanied by her family as well as her attorney, Gianni Floro, who tape-recorded the entire session. You sent my standard six-page questionnaire to Mr. Floro well in advance of the appointment, and requested it be completed prior to their appointment. However, he told me he did not give it to them to fill out until they arrived in the office. Initially Mr. Floro began answering the questions I was asking Mrs. Marrone, but I explained to him that it wasn't an independent exam if the attorney answered the questions and gave the history. I asked him to please only interject to clarify things for his clients. The history and exam were all done in the same room with all family members and Mr. Floro present, and all had input on the history obtained.

My conclusions following this exam, given with a reasonable degree of medical certainty, are that her health problems are not due to exposure to the indoor air environment at the residence at 354 Timber Road, Mt. Gretna, Lebanon, PA. Specifically:

- (1) Mrs. Marrone's complaint of hair loss is not due to exposure to the indoor air environment at the residence in question at 354 Timber Road in Lebanon, PA.
- (2) Mrs. Marrone's abdominal cramping and diarrhea similarly are not related to the exposure to the indoor air environment at the Timber Road Home.
- (3) Mrs. Marrone also complains of dry itching skin, which is not due to that exposure.
- (4) Mrs. Marrone also complains of severe physical fatigue, mental fatigue, trouble with concentration, and loss of cognitive function. She claims that she also has difficulty putting records together and filing and couldn't help her daughter with her math homework, as well as trouble with organizational skills and poor long-term memory. These complaints were present (and documented in her VA records) prior to ever living in the Timber Road home. Therefore, none of these can be attributed to her exposure to the indoor air environment in the house in question.
- (5) Mrs. Marrone claims recurrent sinusitis with cough producing phlegm, and frequent hoarseness of the voice. These problems were present prior to her purchasing the home at 354 Timber Road, and therefore are not due to mold exposure from the house in question.

COMPLETE HISTORY AND PHYSICAL: (History obtained from personal interview as well as reviewing supplied medical records)

ID: Mrs. Marrone is a 45-year-old white female

CC: Multiple health problems due to mold exposure in her former residence.

HPI: Mrs. Marrone states that she and her husband bought a home at 354 Timber Road in Lebanon, PA in August of 1999, and lived there until October of 2000. They noticed when they first purchased the home that a piece of pegboard in the basement was discolored and they mentioned this to the home inspector. During their time living in the home they didn't notice any significant health problems until July or August of 2000. At that time, they left the home closed up for a little over a week while they took their son to school in Missouri. When they returned home she states the entire basement had a "green fuzzy growth" all over the ceiling stucco, the wall paneling, and the pegboard. They did not notice any leaks or any standing water but their attorney showed me some black and white photocopies of some photographs of these walls. I was unable to make out any details because of the poor quality, but they tell me that these showed a lot of mold growth. They also noticed that it smelled musty, so they called the insurance company. They also notified their real estate agent from whom they purchased the home, who recommended contacting the US Environmental

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Protection Agency and the State Health Department. The Health Department gave them a list of labs that could perform mold testing, and they eventually hired A2SI to do the environmental testing. They performed swabs and air sampling for about one hour on one single visit to the house on Timber Road in August of 2000. The family tells me that they found Aspergillus and Penicillium as well as Stachybotrys. She says that the person from A2SI who performed the testing told her that there could possibly be some health effects from these types of molds. The lab told them that they would get back to them when the results were available. However, about one month later there was no word from A2SI, so Mrs. Marrone telephoned them. She claims that he recommended sealing off the entire lower level, and getting a biohazard team in to perform an abatement of the area. However, her husband was already in the process of ripping out all of the drywall and the paneling. He was told to stop it and seal it off and get out of the area. The husband tells me that when he pulled away the paneling from the walls there were water-stained blocks at the front of the home. They began moving out immediately that day on September 19, 2000. They packed up their belongings, and moved out completely on October 14, 2000, and have not been back since.

Mrs. Marrone complains of multiple health problems that she attributes to this exposure. One of them was hair loss. She noticed that in January of 2000 that some hair had started coming out. She claimed it was so bad that it would clog the sink. It lasted several months and continued even after they left the home. She sought no medical care for this, but did consult with a beauty salon. They recommended she keep her hair long, and use some different hair care products and a different type of brush. She states her hair is now growing back and it is improving since they have been out of the Timber Road house, but it took several months to improve, and claims it isn't back to normal yet.

She also complains of a lot of sinusitis and difficulty breathing, and has had numerous sinus infections, for which she sought medical care at the Lebanon VA as well as the VA in Missouri. (These complaints and problems predate the purchase of the home on Timber Road, ie one in chart from 12/28/1998). Associated with this are a cough, producing phlegm, and postnasal drip. She claims she had been treated with antibiotics multiple times as well without much improvement. When she finally saw an ENT surgeon in Missouri it was discovered that she had mucus retention cyst in the sphenoid sinuses as well as a deviated nasal septum and enlarged turbinates. She had the ENT surgery to reduce the turbinates and remove the mucus cyst and fix the deviated septum in January 2002. She reports that her problems improved greatly after this surgery. She has also quit smoking, and her productive cough has resolved. She also complained of fevers, related to the sinusitis, which stopped when she moved out of the home on Timber Road in October 2000, although her VA record documents episodes prior to 1999.

She also complains of abdominal cramping and diarrhea that were present only while she lived in this home in question in Lebanon, and when they moved out this stopped completely. She also had complained of dry itching skin that stopped after moving out of the home. She tells me also that she had hoarseness of the voice that would occur as soon as she was in contact with any of the air from the basement, either by walking by the basement door when it was open or when she would launder her husband's clothing after he had been removing drywall from the basement. This lasted sometimes for days afterward or sometimes just for an hour, then her voice would come back. She claims this all stopped when she moved out of the house in question. Review of her VAMC record of 1/19/1999 reveals hoarseness that starts on day five after her weekly Avonex injection; it lasts until the next shot, and clears up within 17 minutes after the next Avonex injection. Similarly she was evaluated on 3/22/99 (these visits predate her purchase of the home on Timber Road) at the ENT clinic for hoarseness in the voice and choking that resolved with Avonex injection. She was referred to Speech Pathology, and they confirmed this history, but she no-showed for her video recording evaluation. An evaluation in neurology clinic on 10/01/99 reveals she complained of hoarseness in the voice when weekly Avonex dose is wearing off, at about the fifth day. The doctor felt there was no explanation for this other than possible vocal cord spasticity.

She also complains of severe fatigue and mental fogging, trouble with concentration, loss of cognitive function and trouble with long-term memory. She had trouble putting house records together and filing. She had trouble concentrating and "getting together" with her organizational skills. She couldn't help her daughter with her math homework. This has greatly improved since she moved out of this home in question but she

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states it is not completely gone. Review of her VAMC records reveals a visit to the neurology clinic on 8/7/98 for fatigue, poor memory, dizziness, incontinence, and loss of voice. There was also an evaluation in neurology clinic on 9/15/98 for fatigue, pain, and depression, which predates her purchase of the house on Timber Road. She was treated with Ritalin and Avonex, and was improved on follow-up exam 10/16/98. Repeat evaluation 11/20/98 still c/o fatigue and wanting Avonex q 5 days instead of weekly. An evaluation in neurology clinic on 10/01/99 reveals she complained of difficulty with memory and forgetfulness, labile emotions, and on Prozac for a number of years for this.

PAST MEDICAL HISTORY: Her past medical history is significant for multiple sclerosis, which was diagnosed in 1997. She occasionally needs a wheelchair and a lift but she is currently in remission. She has been on Interferon Alfa injections weekly or every five days but these have stopped because she is currently in remission. She also has a history of gastric ulcer disease in 1976, was treated medically. She has a history of asthma that started with smoke exposure from a wood-fired stove she had in her home in Missouri. When they got rid of the wood-burning stove, her asthma went away. Her past medical history is also significant for psychiatric and psychological problems for which she declines to discuss in the office today. VA records document depression, marital difficulties and she was separated at one point.

She also has a history of multiple gallbladder attacks and abdominal pain and finally had a laparoscopic cholecystectomy in May of 2000, and these symptoms have since resolved completely. There is no history of heart disease but she did have an evaluation of chest pain and had a Persantine-Thallium stress test that was negative. She denies any history of COPD or emphysema. No history of hypertension or diabetes mellitus. There was some question of lupus in the past, but her ANA and SPEP were normal.

Allergies: She is allergic to Penicillin. She had it when she was 12 years old and got generalized urticaria, was in critical condition, and had to have multiple Adrenalin shots.

Medications: Her medications include Avonex (which she is no longer taking) for the MS, Clonazepam, and Baclofen. She needed Albuterol when she was having sinusitis but since her sinus surgery she has not needed the Albuterol at all.

Surgeries: Sinus surgery in 2002, laparoscopic cholecystectomy in May 2000, umbilical herniorrhaphy in 1997 and an incisional herniorrhaphy in 1999 (VA records: umbilical herniorrhaphy 1998, exploratory laparoscopy 1981 for suspected ectopic pregnancy, and T&A in 1973)

SOCIAL HISTORY: She denies alcohol use. She claims that she only smokes 1/2 a pack of cigarettes per day for about 30 years, quit for about three or four years during that time, and then quit completely two weeks ago. Her medical records from the VA from 9/30/1999, 2/17/2000, and from 3/7/2002 however document that she smoked two packs per day for 30 years.

FAMILY HISTORY: Her family history is significant for alcoholism, cancer, asthma, migraines, rheumatoid arthritis and heart disease. Her mother died from heart disease at age 72 and she has no idea of her father's health or age or whether he is alive or not.

WORK HISTORY: She was a food inspector in 1993, which was the last time she worked outside the home, and since then she has been a full time homemaker. She previously worked as a truck driver, Sunday school teacher, electronics worker. She was in the Army and is on 100% disability from the VA. These are from gastric ulcer, the MS, reflux esophagitis and other problems that she is not specific about, but that her VA records indicate psychiatric problems.

REVIEW OF SYSTEMS: As above in the HPI.

PHYSICAL EXAMINATION: Mrs. Marrone is alert and oriented x 3, no distress. HEENT: NCAT. PERRLA. EOMI. Funduscopic exam is normal. Ears: TM's clear bilaterally. Nose is clear. The nasal passages are patent bilaterally. There is no swelling, erythema, boggy or deformity. Throat is clear, Uvula midline. The examination of her hair reveals there is no alopecia, no patches of hair loss noted. Her hair is dyed a shade of pinkish red. Neck is supple, no meningeal signs or lymphadenopathy. No thyromegaly. Chest is clear to auscultation and percussion. There are no rales, wheezes, or rhonchi. There is no wheezing with forced expiration. Heart: Regular rate and rhythm without murmurs, gallops or rubs. Abdomen: Normoactive bowel sounds, soft, non-tender, no guarding, no rebound, no masses, no hepatosplenomegaly. Extremities show no cyanosis, clubbing or edema. There are good peripheral pulses. Neurological exam shows she is somewhat weak in her lower extremities. However she can walk independently on her heels and her toes and can hop

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on each foot independently. She is able to do a deep knee bend, but I did assist her slightly with these maneuvers. Her gait was steady although slightly wide-based, and she walked around the office to the restroom and in and out without assistance. Her deep tendon reflexes are hyperreflexic in the lower extremities with about 1-2 beats of clonus in both ankles. There was slight incoordination with opposing the thumb to the tip of each finger on the left hand. It was normal on the right. Her grips are equal bilaterally.

DISCUSSION: As mentioned in the introduction to this independent medical exam, Mrs. Marrone claims to have had multiple health problems that she attributes to an exposure to the molds, *Penicillium*, *Aspergillus* and *Stachybotrys* in the indoor air in her home at 354 Timber Road in Lebanon, PA from August 1999 to October of 2000. It is my opinion, with a reasonable degree of medical certainty, that none of these health problems are due to the exposure to the indoor air at her home at 354 Timber Road. Specifically the hair loss, the fatigue, trouble concentrating, loss of cognitive function and abdominal pain are all clearly not due to exposure to this indoor air environment.

Her history of sinusitis, cough, phlegm, fevers and hoarse voice are more likely related to her smoking history. Certain people, many of whom have coexistent hay fever and other environmental allergies, are allergic to molds and dusts. When these allergic people are exposed to a heavy load of allergens in the air, they can have an exacerbation of their allergy symptoms. Exposure to moldy indoor air environments can cause upper respiratory symptoms such as sinus congestion, itchy eyes, watery eyes, sneezing, coughing and hoarseness of the voice in persons whom are allergic to these molds. However, these symptoms would resolve when the exposure stopped. There is no documentation anywhere in the medical record that I can discover that shows that Mrs. Marrone is allergic to molds, or even had any testing for allergies to molds (She did have some mold and fungi antibody titres, which were negative). In fact, she specifically denies hay fever or any environmental allergies.

Her upper respiratory symptoms were due to the structural abnormalities in her nose as well as her heavy cigarette smoking, and indeed, her cough with phlegm production predated her residing in the home in question. She finally saw an ENT surgeon and was discovered to have sinusitis, sphenoid sinus mucus retention cyst, enlarged turbinates and a deviated nasal septum. These symptoms all continued until she had nasal surgery in January of 2002, when she had complete resolution of all her sinus troubles: No infections, no trouble breathing, and no cough. Similarly she also has quit smoking now and her symptoms have abated. This shows that her problems with her sinuses and the upper respiratory system were related to her structural problems in her nose (which lead to requiring nasal/sinus surgery) and her many years of heavy cigarette smoking, and aren't related to mold exposure in the house at Timber Road.

The mental fogging, trouble concentrating, fatigue, and memory loss all were present and evaluated by physicians prior to purchasing the home at 354 Timber Road. These symptoms are most likely related to her MS and her depression, but clearly are not related to her mold exposure.

There has been a lot of media coverage recently regarding a myriad of health effects allegedly due to "toxic mold" exposure. Popular evening television "news magazine" shows have featured these stories. There is absolutely no credible scientific evidence that this is true. Some physicians are "believers" in this, although they are in a very small minority. They cite the evidence that many of these molds, when grown on appropriate foodstuffs or nutrient agar, have been shown to produce mycotoxins. These mycotoxins are known toxins, and some are considered potential chem-bio warfare agents. Some adverse health effects from these toxins are possible when contaminated food is ingested, or when inhalational exposure occurs to the purified toxins present in biowarfare bombs. The error in logic is then made that because these molds can produce toxins, and the molds are discovered in the homes of people with health problems, then these health problems have to be due to the molds. However, there is **NO** evidence that mold growing on drywall produces these mycotoxins to any significant degree, that they are in a bioavailable form, that it would be airborne in any significant quantity, or that it would be absorbed in any significant amount.

Certain immunocompromised persons, such as transplant recipients on immunosuppressive drugs, patients with advanced HIV disease, and cancer patients on chemotherapy, have an increased chance of getting a

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systemic fungal infection because they cannot fight off these fungi like those of us with a normal immune system can. They acquire these infections not due to high exposures, but because of their weakened immune systems. Obviously this does not apply to anyone in the Marrone family.

Molds are ubiquitous in all indoor and outdoor environments on this planet. They are everywhere- in the air, on our clothing, carpets, floors, walls, ceilings, and ductwork- everywhere. They perform a necessary function in the environment: they help degrade and decompose vegetable matter, such as leaves and trees, which returns nutrients to the soil, so that new plants can grow. This is why molds in outdoor air are higher in certain seasons, mainly springtime, when the snow melts and the leaves from the previous fall are wet and ready to degrade.

Molds need a source of nutrients on which to grow, they require a warm environment, and they need moisture. Water leakage or highly humid environments can promote mold growth, and carpet, drywall, and fiberboard paneling can have sufficient nutrients to support some mold growth. As mentioned above, molds are everywhere, and the right humidity and temperature will cause them to grow on virtually any environmental surface. This has been occurring since man has been living indoors, and continues today. To attribute varied health effects such as memory loss, cognitive dysfunction, visual impairments, and alopecia to exposure to a musty basement, that continues even after exposure ceases, borders on the ludicrous.

Sir Austin Bradford Hill, in 1965, wrote a landmark article regarding assessing causation of a disease. These principles still apply today. Among other criteria, there must be 1) Strength of Association- the rate of increase in the disease in the exposed population; 2) Consistency- association observed by different investigators in different populations; 3) Specificity- the association is limited to people with specific exposures and to particular physiologic systems; 4) Temporality- the exposure precedes the disease; 5) Plausibility- is this exposure plausible, i.e., does it make sense? 6) Coherence- Is this association consistent with known facts of the disease? As you can see, these principles are applicable only to allergic symptoms and mold exposures. Cognitive dysfunction, fatigue, poor memory, visual disturbances and other vague, unmeasurable and purely symptomatic complaints fail to fulfill any of these criteria for a cause and effect relationship with the mold exposure. Relating these to Mrs. Marrone's case: 1) Strength of Association: Since molds are ubiquitous, these diseases should be commonly seen in the innumerable people who have damp basements, and they aren't. 2) Consistency: No reproducible studies exist proving this association. 3) Specificity: These symptoms are not specific and involve a multi-organ, multi-system involvement- gastrointestinal, respiratory, neurological, dermatological, visual. 4) Temporality-The "disease" in this case preceded the exposure, so the exposure couldn't possibly have caused the disease. 5) Plausibility- To propose that exposure to a moldy basement caused these vague, multi-system complaints simply doesn't make any scientific sense. It isn't plausible. 6) Coherence- This association between molds and these symptoms is not consistent with the known facts of the health effects of molds and the allergic symptoms they can exacerbate. Otherwise, we would be forced to believe then that cat dander and ragweed pollen exposure can cause memory loss, poor cognition, hair loss and abdominal cramping.

The Institute of Medicine (IOM, part of the National Academies of Science) published guidelines in 1988 for confirming the diagnosis of an occupational or environmental illness. These four points include: 1) Are the findings explained by the suspected exposure? 2) Is the chronology appropriate? 3) Is there confirmation of exposure and quantification of the dose? And 4) Are there any other explanations for the illness? The answer to point # 1 is that the findings in this case are not explained by the exposure to the molds. #2 The chronology of the weakness, hoarseness, cognitive difficulties, and sinusitis does not fit-these symptoms all preceded the exposure, therefore the exposure could not have caused the illness. #3 There is no quantification of dose. #4 The symptoms and illnesses are adequately explained by other common causes (i.e. cigarette smoking, MS, depression). Therefore one has to conclude that this exposure did not cause these illnesses.

Thank you very much for allowing me to examine this interesting case.

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A handwritten signature in cursive script, reading "Michael G. Holland, MD". The signature is written in dark ink and is positioned above the printed name.

Michael G. Holland, MD, FACMT, FACEP, FACOEM

DATE OF VISIT: 08/21/2002

EXHIBIT “O”

**MICHAEL G. HOLLAND, FACMT, FACOEM, FACEP
OCCUPATIONAL AND ENVIRONMENTAL TOXICOLOGY CONSULTING**

Attorney John Flounlacker
305 North Front Street Sixth Floor
PO Box 999
Harrisburg, Pennsylvania 17108
September 11, 2002

Re: Marrone, Adam Matthew

Dear Mr. Flounlacker,

Adam Matthew Marrone is a 20-year-old white male who I examined in my office at Lancaster General Health Campus in Lancaster, Pennsylvania on August 21, 2002. He was accompanied by his family as well as their attorney, Gianni Floro, who tape-recorded the entire session. The history and exam were all done in the same room with all family members and Mr. Floro present, and all had input that formed the basis of the history obtained.

I can tell you, with a reasonable degree of medical certainty, that the alleged health problems that Matthew Marrone has experienced are not due to his exposure to the indoor air environment in the house on 354 Timber Road in Lebanon, PA. Specifically:

- 1) He complains of fatigue, sleeping a lot, and still being tired after sleeping until 3-4 PM. He states this is improved somewhat since being out of the house in question. I can tell you definitively that this is not due to any exposures to mold at the house at 354 Timber Road, Lebanon, PA.
- 2) He claims loss of both short- and long- term memory. This caused him trouble with his studies in school and continues after moving away. This is not due to exposure to molds at the Timber Road house.
- 3) He complains of trouble with his eyesight, blurring vision, burning, watery eyes, which continues now, two years after the exposure to the indoor environment ceased. This is not due to his exposure to molds.
- 4) He complained of some stuffy nose and sinus trouble and runny nose and shallow cough, itchy throat and postnasal drip that all cleared up after leaving the house. Since he has no documented mold allergies, it is impossible to attribute these symptoms to mold exposures. Since he lived in this house with two heavy smokers, this is likely due to environmental tobacco smoke exposure, since it cleared up when he went to school.
- 5) He was diagnosed as possibly asthmatic two months ago when he had a cold with cough for 1.5 months. He has been started on an Albuterol inhaler and the cough has resolved. Since these health problems did not occur while he was in the home, I similarly can't attribute those to the indoor air environment exposure.

COMPLETE HISTORY AND PHYSICAL EXAMINATION: (History obtained from personal interview of the entire Marrone family, as well as records supplied)

ID: Adam Matthew Marrone is a twenty year old white male.

CC: Multiple adverse health effects due to environmental mold exposure.

HPI: (Most of the history provided by Mrs. Marrone) Mrs. Marrone states that she and her husband bought a home at 354 Timber Road in Lebanon, PA in August of 1999, and lived there until October of 2000. They noticed when they first purchased the home that a piece of pegboard in the basement was discolored, and they mentioned this to the home inspector prior to purchasing the home. During their time living in the home they didn't notice any significant health problems until July or August of 2000. At that time, they left the home closed up for a little over a week while they took their son to school in Missouri. When they returned home, the entire basement had a "green fuzzy growth" all over the ceiling stucco, the wall paneling, and the pegboard. They did not notice any leaks or any standing water but their attorney showed me some black and white photocopies of some photographs of these walls. I was unable to make out any details because of the poor quality, but they tell me that these showed a lot of mold growth. They also noticed that it smelled musty, so they called the insurance company. They also notified their real estate agent, from whom they purchased the home, who recommended contacting the US Environmental Protection Agency and the State Health Department. The Health Department gave them a list of labs that could perform mold testing, and they

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eventually hired A2SI to do the environmental testing. They performed swabs and air sampling for about one hour on one single visit to the house on Timber Road in August of 2000. The family tells me that they found *Aspergillus* and *Penicillium* as well as *Stachybotrys*. She says that the person from A2SI who performed the testing told her that there could possibly be some health problems from these types of molds. The lab told them that they would get back to them when the results were available. However, about one month later there was no word from A2SI, so Mrs. Marrone telephoned them. She claims that he recommended sealing off the entire lower level, and getting a biohazard team in to perform an abatement of the area. However, her husband was already in the process of ripping out all of the drywall and the paneling. He was told to stop it and seal it off and get out of the area. Mr. Marrone tells me that when he pulled away the paneling from the walls there were water-stained blocks at the front of the home. They began moving out immediately that day on September 19, 2000. They packed up their belongings, and moved out completely on October 14, 2000, and have not been back since.

Matt complains of fatigue, feeling tired and lazy, and sleeping a lot. He states he would still be tired even if he slept until 3 or 4 PM. He states this is improved somewhat since being out of the house in question.

He also complains of memory loss, troubles with both short- and long- term memory. He describes difficulty putting a name to a familiar face, trouble concentrating, and difficulty paying attention in school. This caused him trouble with his studies in school, and continues after moving away, although it is improved.

He complains of trouble with his eyesight, blurring vision, burning, watery eyes, which can happen at any time, and continues now, two years after the exposure to the indoor environment ceased. He states this occurs mostly when driving or watching television, and not while reading.

He complained of some stuffy nose and sinus trouble and runny nose and shallow cough, itchy throat and postnasal drip that all cleared up after leaving the house. He denies allergies or hay fever. He is a non-smoker.

He was diagnosed as possibly asthmatic two months ago when he had a cold with cough for 1.5 months. He was started on an Albuterol inhaler and the cough has resolved. He now only has to use the Albuterol as needed. He has only needed it one time in the past two weeks. There are no medical records of this in the packet that was sent to me.

PAST MEDICAL HISTORY: He has knee problems, questionable arthritis. He was hospitalized when he was age 6 or 7 for fever and dehydration at Lancaster General Hospital. He has had no hospitalizations since. He denies any other significant past medical history.

ALLERGIES: No significant allergies.

MEDICATIONS: He uses Albuterol p.r.n. as his only medication.

SOCIAL HISTORY: He denies alcohol use. He denies tobacco use. He smoked as a teen with some friends but never regularly and does not smoke now. Recently married, currently a student in college.

FAMILY HISTORY: Significant for alcoholism, cancer, asthma, migraines, seizures, psychological disorder, rheumatoid arthritis and heart disease.

REVIEW OF SYSTEMS: He complained of fatigue in the past. No skin problems. Past sinus and throat problems that resolved. Blurred vision and decreased vision and eyelid twitching and itchy eyes are still present, difficulty breathing with minimal exertion at present. He states he's had heartburn and indigestion past and present. Also muscle twitching in the past and present, and currently with the memory loss and the loss of concentration.

PHYSICAL EXAMINATION: Alert, pleasant white male in no distress. HEENT: NC, AT. PERRLA. EOML. Funduscopic exam normal. Ears: TMs clear. Nose clear. Throat clear. Uvula midline. There is slight lymphoid vesicles noted in the posterior pharynx but there is no erythema, swelling or exudate. Nasal mucosa are clear. There are no discharges. Neck is supple, no meningeal signs, no lymphadenopathy. Chest clear to auscultation and percussion. There are no rales, wheezes or rhonchi and there is no wheezing with forced expiration. Heart: Regular rate and rhythm without murmurs, gallops or rubs. The abdomen is soft. He has slight abdominal tenderness to palpation in the left mid-abdomen and the right lower quadrant. There is no

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guarding, no rebound and there are no masses or hepatosplenomegaly. Extremities show no cyanosis, clubbing or edema. There are good peripheral pulses. Cranial nerves II-XII within normal limits. Motor, sensory, station and gait all within normal limits. He can walk on his heels and his toes independently and he can hop on each foot independently. He can bend over and touch his toes and he can do a deep knee bend. Range of motion of shoulders, arms and hands are normal. His fine motor coordination is normal, and his grip strengths are equal bilaterally. Romberg's test is negative.

ASSESSMENT: Matthew Adam Marrone is a 20-year-old white male who states he was exposed to molds in the indoor air environment in his home at 354 Timber Road, Lebanon, PA. He alleges multiple health complaints due to this exposure.

He claims he had upper respiratory symptoms of stuffy nose, sinus trouble, runny nose, itchy throat, postnasal drip, and shallow cough while in that home. There were apparently no MD visits for this, and the only medical record available to me is for a subcutaneous abscess. This all cleared up as soon as he left the house and has not had trouble with this since. Certain people, most of whom have coexistent hay fever and other environmental allergies, are allergic to molds and dusts. When these allergic people are exposed to a heavy load of allergens in the air, they can have an exacerbation of their allergy symptoms. There is no documentation anywhere in the medical record that I can discover that shows that Matt Marrone is allergic to molds, or had any testing for allergies to molds. This could just as easily have been due to exposure to environmental tobacco smoke in the home with two heavy smokers. I therefore cannot attribute these purely subjective complaints as having any relationship to mold exposures.

The other health complaints of memory loss and fatigue are not attributable to the exposure to the indoor air environment. This may be due to stress of school and his recent marriage. He also complains of continued burning in the eyes, watery eyes, blurred vision and these come on unrelated to seasons of the year or times of the day but mostly when he is driving or watching TV, not while reading. This suggests that this is due to eyestrain, and he may need corrective lenses. It is clearly not related to the indoor air environment of the home in question. He reports that he was recently diagnosed as asthmatic after a cough of several months duration, which has since resolved. I have no documentation of how this asthma diagnosis was made, no record of this in the packet available to me. Since this occurred a year and a half after leaving this home, it is clearly not related to the exposure.

There has been a lot of media coverage recently regarding a myriad of health effects allegedly due to "toxic mold" exposure. Popular evening television "news magazine" shows have featured these stories. There is absolutely no credible scientific evidence that this is true. Some physicians are "believers" in this, although they are in a very small minority. They cite the evidence that many of these molds, when grown on appropriate foodstuffs or nutrient agar, have been shown to produce mycotoxins. These mycotoxins are known toxins, and some are considered potential chem-bio warfare agents. Some potential health effects from these toxins are possible when contaminated food is ingested, or when inhalational exposure occurs to the purified toxins present in biowarfare bombs. They then make the error in logic that because these molds can produce toxins, and the molds are discovered in the homes of people with health problems, then these health problems have to be due to the molds. However, there is NO evidence that mold growing on drywall produces any of these mycotoxins to any significant degree, that they are in a bioavailable form, that it would be airborne in any significant quantity, or that it would be absorbed in any significant amount.

Certain immunocompromised persons, such as transplant recipients on immunosuppressive drugs, advanced AIDS patients, and cancer patients on chemotherapy, have an increased chance of getting a systemic fungal infection because they cannot fight off these fungi like those of us with a normal immune system can. They acquire these infections not due to high exposures, but because of their weakened immune systems. Obviously this does not apply to anyone in the Marrone family.

Molds are ubiquitous in all indoor and outdoor environments on this planet. They are everywhere - in the air, on our clothing, carpets, floors, walls, ceilings, and ductwork - everywhere. They perform a necessary function in the environment: they help degrade and decompose vegetable matter, such as leaves and trees,

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 PAGE 4

which returns nutrients to the soil so that new plants can grow. This is why molds in outdoor air are higher in certain seasons, mainly springtime, when the snow melts and the leaves from the previous fall are wet and ready to degrade.

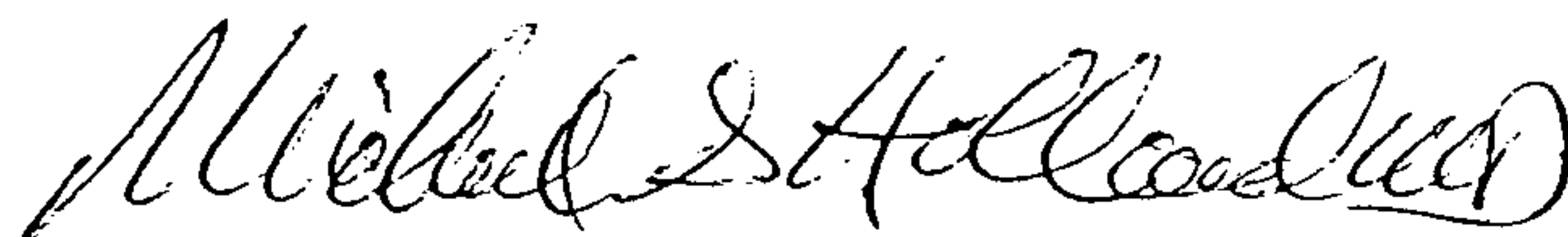
Molds need a source of nutrients on which to grow, they require a warm environment, and they need moisture. Water leakage or highly humid environments can promote mold growth, and carpet, drywall, and fiberboard paneling can have sufficient nutrients to support some mold growth. As mentioned above, molds are everywhere, and the right humidity and temperature will cause them to grow on virtually any environmental surface. This has been occurring since man has been living indoors, and continues today. To attribute varied health effects such as memory loss, cognitive dysfunction, visual impairments, and alopecia to exposure to a musty basement, which continues even after exposure ceases, borders on the ludicrous.

Sir Austin Bradford Hill, in 1965, wrote a landmark article regarding assessing causation of a disease. These principles still apply today. Among other criteria, there must be 1) Strength of Association-the rate of increase in the disease in the exposed population; 2) Consistency- association observed by different investigators in different populations; 3) Specificity- the association is limited to people with specific exposures and to particular physiologic systems; 4) Temporality- the exposure precedes the disease; 5) Plausibility- is this exposure plausible, i.e., does it make sense? 6) Coherence- Is this association consistent with known facts of the disease? As you can see, these principles are applicable only to allergic symptoms and mold exposures. Cognitive dysfunction, fatigue, poor memory, visual disturbances and other vague, unmeasureable, and purely symptomatic complaints fail to fulfill any of these criteria for a cause and effect relationship with the mold exposure. In Matt's case: 1) Strength of Association: Since molds are ubiquitous, these diseases should be commonly seen in the innumerable people who have damp basements, and they aren't. 2) Consistency: No reproducible studies exist proving this association. 3) Specificity: These symptoms are not specific and involve a multi-organ, multi-system involvement-gastrointestinal, respiratory, neurological, dermatological, visual. 4) Temporality: No medical evidence of these disorders exists in Matt's case, therefore it impossible to attribute purely subjective symptoms to a particular exposure. 5) Plausibility- To propose that exposure to a moldy basement caused these vague, multi-system complaints simply doesn't make any scientific sense. It isn't plausible. 6) Coherence- this association between molds and many of these symptoms is not consistent with the known facts of the health effects of molds and the allergic symptoms they can exacerbate. Otherwise, we would be forced to believe then that cat dander and ragweed pollen exposure could cause memory loss, fatigue, and visual disturbances.

The Institute of Medicine (IOM, part of the National Academies of Science) published guidelines in 1988 for confirming the diagnosis of an occupational or environmental illness. These four points include: 1) Are the findings explained by the suspected exposure? 2) Is the chronology appropriate? 3) Is there confirmation of exposure and quantification of the dose? And 4) Are there any other explanations for the illness? The answer to point # 1 is that the findings in this case are not explained by the exposure to the molds. #2 The chronology of the sinus congestion, cough, fatigue, memory loss, and loss of eyesight aren't documented anywhere in the medical record, so there is no objective evidence that the exposure preceded the onset of symptoms (One visit to a doctor on 12/7/1999 for an axillary lymph node enlargement due to subcutaneous abscesses is all that is contained in his medical records). No evidence exists for any recurrent sinusitis, visual problems, or shortness of breath. #3 There is no quantification of dose. In fact, Matt was taken to school in Missouri, and when the family returned home from that trip, they noticed the mold overgrowth in their basement. They tell me their health effects occurred after that exposure. So Matt would not have even been exposed to these excess molds, and therefore it could not be the cause of his health effects. #4 The symptoms and illnesses are adequately explained by other common causes (i.e. passive cigarette smoke exposure in a household of heavy smokers, fatigue due to stress of college course work & recent marriage; visual problems due to eyestrain). Therefore one has to conclude that this exposure did not cause these illnesses.

Thank you very much for allowing me to examine this interesting case.

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A handwritten signature in black ink, appearing to read "Michael G. Holland, MD". The signature is fluid and cursive, with the last name "Holland" being more prominent.

Michael G. Holland, MD, FACMT, FACEP, FACOEM

DATE OF VISIT: 08/21/2002

EXHIBIT “P”

**MICHAEL G. HOLLAND, MD, FACMT, FACOEM, FACEP
OCCUPATIONAL AND ENVIRONMENTAL TOXICOLOGY CONSULTING**

Attorney John Flounlacker
305 North Front Street, Sixth Floor
PO Box 999
Harrisburg, Pennsylvania 17108
September 11, 2002

Re: Marrone, Vida

Dear Mr. Flounlacker,

I had the opportunity to examine Vida Marrone in my office at the Lancaster General Health Campus in Lancaster, Pennsylvania on August 21, 2002. She was accompanied by her family as well as her attorney, Gianni Floro, who tape-recorded the entire session. The history and exam were all done in the same room with all family members and Mr. Floro present, and all had input that formed the basis of the history obtained.

My conclusions on this exam, given with a reasonable degree of medical certainty, are that her health problems are not due to exposure to the indoor air environment at the residence at 354 Timber Road, Mt. Gretna, Lebanon, PA. Specifically:

- 1) She claims constant fatigue and trouble concentrating, onset while living at the Timber Road residence, and continues to a lesser degree since moving out. This is not due to any mold exposure.
- 2) She also complains of hair loss, which has improved somewhat since moving out. This is not due to the mold exposure.
- 3) She complains of fluctuation in bowel movements, constipation alternating with diarrhea, which have resolved since moving out of the house in question. This is not due to mold exposure at the Timber Road residence.
- 4) She complains of headaches that she thought was due to sinusitis, but have since resolved upon leaving the Timber Road residence. This is also not due to mold exposure at the Timber Road residence.
- 5) She also had dry, itchy skin, which has resolved since she moved. This is also not due to mold exposure at the Timber Road residence.
- 6) Vida tells me that she did have some sinus problems with congestion, bronchitis and sinusitis and excessive coughing and itching and burning eyes. She was treated with antibiotics and saw a doctor once according to the medical record, but she estimates five or six doctor visits for this. These all resolved after moving out of the house. This is likely due to tobacco smoke exposure.

COMPLETE HISTORY AND PHYSICAL: (History obtained from personal interview of all Marrone family members, as well as reviewing supplied medical records)

ID: Vida Marrone is an 18-year-old white female

CC: Multiple health problems due to mold exposure in her former residence.

HPI: Vida Marrone's parents bought a home at 354 Timber Road in Lebanon, PA in August of 1999, and the family lived there until October of 2000. They noticed when they first purchased the home that a piece of pegboard in the basement was discolored and they mentioned this to the home inspector. During their time living in the home they didn't notice any significant health problems until July or August of 2000. At that time, they left the home closed up for a little over a week while they took their son to school in Missouri. When they returned home she states the entire basement had a "green fuzzy growth" all over the ceiling stucco, the wall paneling, and the pegboard. They did not notice any leaks or any standing water but their attorney showed me some black and white photocopies of some photographs of these walls. I was unable to make out any details because of the poor quality, but they tell me that these showed a lot of mold growth. They also noticed that it smelled musty, so they called the insurance company. They also notified their real estate agent from whom they purchased the home, who recommended contacting the US Environmental Protection Agency and the State Health Department. The Health Department gave them a list of labs that could perform mold testing, and they eventually hired A2SI to do the environmental testing. They performed swabs and air sampling for about one hour on one single visit to the house on Timber Road in August of 2000. The family

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tells me that they found Aspergillus and Penicillium as well as Stachybotrys. She says that the person from A2SI who performed the testing told her that there could possibly be some health problems from these types of molds. The lab told them that they would get back to them when the results were available. However, about one month later there was no word from A2SI, so Mrs. Marrone telephoned them. She claims that he recommended sealing off the entire lower level, and getting a biohazard team in to perform an abatement of the area. However, Mr. Marrone was already in the process of ripping out all of the drywall and the paneling. He was told to stop it and seal it off and get out of the area. The husband tells me that when he pulled away the paneling from the walls there were water-stained blocks at the front of the home. They began moving out immediately that day on September 19, 2000. They packed up their belongings, and moved out completely on October 14, 2000, and have not been back since.

Vida Marrone has multiple complaints that she attributes to this mold exposure, including sinus problems which were associated with congestion, bronchitis and sinusitis and excessive coughing. She had itchy and burning in the eyes with this and she went to Urgent Care in Lebanon several times, was given Keflex and Codeine cough syrup. She claims she went there 5-6 times but the medical record only shows one visit. She states that this resolved for the most part ever since being out of the house after October of 2000. She also complains of constant fatigue and trouble concentrating, and this persists. She states it is somewhat better since leaving the house but it is still present. It is worse while she is in school and she has trouble concentrating. She was getting her GED and she noticed a lot of trouble with studying and trying to take tests. She never saw a doctor regarding the fatigue or trouble concentrating. She also claims that her hair was falling out, and claims she had lost a lot of hair, and there was even a bald spot above the right ear. She never saw a dermatologist or a doctor about it, but they consulted a beauty salon specialist who recommended a boar's hair hairbrush. She was told to keep the hair long and it is growing back and the bald spot is now gone. She also complains of fluctuations in her bowel movements alternating constipation with diarrhea. No doctor visits regarding this, but she states it is gone completely since being out of the home. She had headaches for weeks at a time in the past. She thought it was due to sinusitis but over-the-counter meds would not help it. The headaches were located in the front and the back of her head. They are gone now since they have moved out of the home in question. She also complains of dry itching skin that has resolved ever since moving out of the house. At no time, however, did she have a noticeable rash. She never saw a doctor about this but she used some lotion and moisturizers with some brief relief. She felt like her feet were falling asleep several times when she was in the home in Lebanon, a "pins and needles" feeling. It happened 3 or 4 times while she was in that house and lasted for an hour at the longest. At one time it happened briefly in her hand. She has not had any recurrence of these feelings in her hands or feet since moving out of the house in Lebanon.

PAST MEDICAL HISTORY: Negative for any heart disease or heart murmur. No history of asthma, diabetes or hypertension. She did have urinary tract infections last year and 2-3 times during the time she lived in the house in Lebanon. She denies any other significant past medical history. There are no other hospitalizations or operations and no other injuries or illnesses.

ALLERGIES: She is allergic to Penicillin and when questioned the mother states that she actually had a rash after given Ampicillin when she was a child and was told that she was allergic and could never take it again.

MEDICATIONS: Her medications include in the past Keflex and a Codeine cough syrup but none currently. The Codeine made her nauseated.

SOCIAL HISTORY: She never used alcohol. She currently smokes 1/4 to one pack of cigarettes per day for about six months she claims.

FAMILY HISTORY: Significant for alcoholism on the mother's side, cancer of the colon in her maternal grandfather, asthma on the mother's side, migraines on the mother's side and a half uncle with epilepsy. Her father has a psychological disorder, maternal grandmother has rheumatoid arthritis and maternal grandmother and maternal grandfather have heart disease.

REVIEW OF SYSTEMS: Significant for drowsiness, fatigue, unusual eating habits, dry skin, facial pain and pressure, runny nose, sinus problems and throat discomfort, eye discomfort, dryness, excessive tearing, itchy eyes, glasses. She complains of chest pain and cough with the sinusitis with abdominal pain, constipation, diarrhea and loss of appetite, tingling and numbness, confusion, depression, memory loss and sleeping difficulty and frequent headaches and irregular menses.

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PHYSICAL EXAMINATION: Alert, pleasant white female in no distress. HEENT: NCAT. PERRLA. EOMI. Ears: TMs are clear bilaterally. Nose is clear. Throat is clear. Uvula midline. Neck is supple, no meningeal signs, no lymphadenopathy. She is slightly tender near her thyroid gland but I don't detect any enlargements or masses. Chest is clear to auscultation and percussion. There are no rales, wheezes or rhonchi. Heart: Regular rate and rhythm without murmurs, gallops or rubs. There is no wheezing with forced expiration. Abdomen is soft, nontender, no guarding, no rebound, no masses, no hepatosplenomegaly. Bowel sounds are normoactive and there is no hyperactivity. Extremities show no cyanosis, clubbing or edema. There are good peripheral pulses throughout. Neurological exam: Cranial nerves II-XII within normal limits. Motor, sensory, station and gait all within normal limits. The deep tendon reflexes are symmetrical. She can walk on her heels and her toes independently, can hop on each foot independently, can do a deep knee bend, can bend over and touch her toes. Range of motion of the shoulders, arms and hands is normal. Grip strength is 5/5. Fine motor coordination is normal and Romberg's test is negative. Skin exam shows she has a tattoo in the small of her back.

SUMMARY AND CONCLUSION: Vida Marrone is an 18-year-old white female with multiple medical symptoms that she attributes to exposure to indoor air environment in her former home at 354 Timber Road in Lebanon, Pennsylvania where she lived from August 1999 until September 2000. The health problems including pins and needles in the feet, the dry itchy skin, the headaches, the fluctuation in her bowel movements, the alopecia, and the constant fatigue and trouble concentrating are all clearly not related to this indoor air environment in this house in question, and I say this with a reasonable degree of medical certainty. She does have a history, she states, of sinus problems and congestion and bronchitis that could possibly be associated with indoor air quality problems such as mold, if a person is allergic to these molds. There is no evidence in her medical record that she is allergic to molds, or that any of this was a recurrent problem for her. Since she is a smoker, and there are other smokers in her family, the tobacco smoke exposure puts her at risk for these symptoms.

There has been a lot of media coverage recently regarding a myriad of health effects allegedly due to "toxic mold" exposure. Popular evening television "news magazine" shows have featured these stories. There is absolutely no credible scientific evidence that this is true. Some physicians are "believers" in this, although they are in a very small minority. They cite the evidence that many of these molds, when grown on appropriate foodstuffs or nutrient agar, have been shown to produce mycotoxins. These mycotoxins are known toxins, and some are considered potential chem-bio warfare agents. Some adverse health effects from these toxins are possible when contaminated food is ingested, or when inhalational exposure occurs to the purified toxins present in biowarfare bombs. The error in logic is then made that because these molds can produce toxins, and the molds are discovered in the homes of people with health problems, then these health problems have to be due to the molds. However, there is **NO** evidence that mold growing on drywall produces these mycotoxins to any significant degree, that they are in a bioavailable form, that it would be airborne in any significant quantity, or that it would be absorbed in any significant amount.

Certain immune-compromised persons, such as transplant recipients on immunosuppressive drugs, patients with advanced HIV disease, and cancer patients on chemotherapy, have an increased chance of getting a systemic fungal infection because they cannot fight off these fungi like those of us with a normal immune system can. They acquire these infections not due to high exposures, but because of their weakened immune systems. Obviously this does not apply to anyone in the Marrone family.

Molds are ubiquitous in all indoor and outdoor environments on this planet. They are everywhere- in the air, on our clothing, carpets, floors, walls, ceilings, and ductwork- everywhere. They perform a necessary function in the environment: they help degrade and decompose vegetable matter, such as leaves and trees, which returns nutrients to the soil, so that new plants can grow. This is why molds in outdoor air are higher in certain seasons, mainly springtime, when the snow melts and the leaves from the previous fall are wet and ready to degrade.

Molds need a source of nutrients on which to grow, they require a warm environment, and they need

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moisture. Water leakage or highly humid environments can promote mold growth, and carpet, drywall, and fiberboard paneling can have sufficient nutrients to support some mold growth. As mentioned above, molds are everywhere, and the right humidity and temperature will cause them to grow on virtually any environmental surface. This has been occurring since man has been living indoors, and continues today. To attribute varied health effects such as memory loss, cognitive dysfunction, visual impairments, and alopecia to exposure to a musty basement, that continues even after exposure ceases, borders on the ludicrous.

Sir Austin Bradford Hill, in 1965, wrote a landmark article regarding assessing causation of a disease. These principles still apply today. Among other criteria, there must be 1) Strength of Association- the rate of increase in the disease in the exposed population; 2) Consistency- association observed by different investigators in different populations; 3) Specificity- the association is limited to people with specific exposures and to particular physiologic systems; 4) Temporality- the exposure precedes the disease; 5) Plausibility- is this exposure plausible, i.e., does it make sense? 6) Coherence- Is this association consistent with known facts of the disease? As you can see, these principles are applicable only to allergic symptoms and mold exposures. Cognitive dysfunction, fatigue, poor memory, visual disturbances and other vague, un-measurable and purely symptomatic complaints fail to fulfill any of these criteria for a cause and effect relationship with the mold exposure. Relating these to Vida Marrone's case: 1) Strength of Association: Since molds are ubiquitous, these diseases should be commonly seen in the innumerable people who have damp basements, and they aren't. 2) Consistency: No reproducible studies exist proving this association. 3) Specificity: These symptoms are not specific and involve a multi-organ, multi-system involvement- gastrointestinal, respiratory, neurological, dermatological, visual. 4) Temporality- No clear temporal relationship exists, no medical evidence of alopecia, recurrent bronchitis, memory difficulties. 5) Plausibility- To propose that exposure to a moldy basement caused these vague, multi-system complaints simply doesn't make any scientific sense. It isn't plausible. 6) Coherence- This association between molds and these symptoms is not consistent with the known facts of the health effects of molds and the allergic symptoms they can exacerbate. Otherwise, we would be forced to believe then that cat dander and ragweed pollen exposure can cause trouble concentrating, tingling in the hands and feet, hair loss and abdominal cramping.

The Institute of Medicine (IOM, part of the National Academies of Science) published guidelines in 1988 for confirming the diagnosis of an occupational or environmental illness. These four points include: 1) Are the findings explained by the suspected exposure? 2) Is the chronology appropriate? 3) Is there confirmation of exposure and quantification of the dose? And 4) Are there any other explanations for the illness? The answer to point # 1 is that the findings in this case are not explained by the exposure to the molds. #2 The chronology of the cognitive difficulties, and sinusitis does not fit. #3 There is no quantification of dose. #4 The symptoms and illnesses are adequately explained by other common causes (i.e. cigarette smoke, stress of school work, moving during high school years). Therefore one has to conclude that this exposure did not cause these illnesses.



Michael G. Holland, MD, FACMT, FACEP, FACOEM

DATE OF VISIT: 08/21/2002

MGH/htscq 15599

CERTIFICATE OF SERVICE

AND NOW, this 18th day of October, 2002, I, Denise L. Huber, an employee of Duane Morris LLP, hereby certify that I have served a copy of the Appendix in Support of Defendant HouseMaster's Motion for Summary Judgment on the following by depositing a true and correct copy of the same in the U.S. Mail at Harrisburg, Pennsylvania, postage prepaid, addressed to:

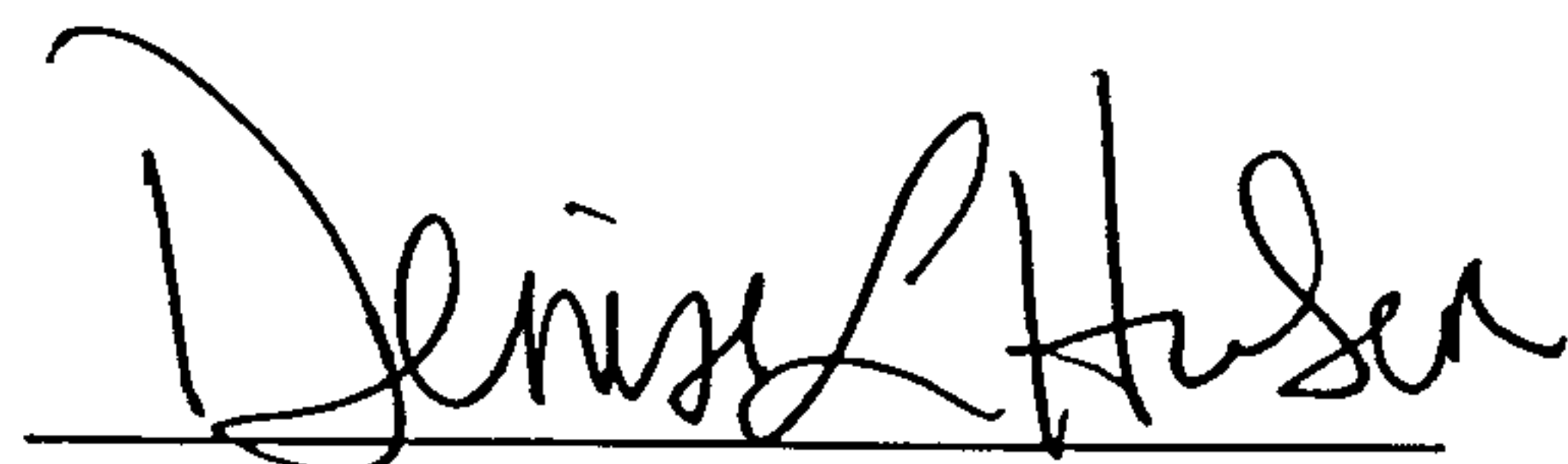
James G. Nealon, III, Esquire
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2411 North Front Street
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Edward A. Monsky, Esquire
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425 Spruce Street
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John Flounlacker, Esquire
Thomas, Thomas & Hafer, LLP
305 North Front Street
Harrisburg, PA 17108

Louis M. Tarasi, Jr., Esquire
510 Third Avenue
Pittsburgh, PA 15219

By: _____



Denise L. Huber

EXHIBIT “Q”

Eckardt Johanning, M.D., M.Sc.

Occupational and Environmental Life Science -
Fungal Research Group, Inc. (FRG)

650 Warren Street - Medical Arts Building
Albany, N.Y. 12208 U.S.A.
518-459-3336 • fax - 4646
www.fungalresearchgroup.com

Offices:
Albany,
New York City
Frankfurt/Main, FRG

October 21, 2002

RE: Jack P. Marrone
11673 Highway PT
Dixon, MO 65459
Date of Birth 2/22/46

I reviewed again the visit of Jack Marrone from January 17, 2002. This is a summary of the findings. I reviewed all provided outside medical reports and environmental findings, including the Advanced Applied Science report from October, 15, 2000.

Mr. Marrone, age 55, is a VA vet, with 100% disability since 1993 secondary to a gunshot wound, posttraumatic stress syndrome, and chloracne problems. He reported that after moving into and after doing some clean-up work inside the house on 354 Timber Rd, Mount Gretna, Pa, he developed a variety of problems including shortness of breath, eye irritation, chest tightness, wheezing, coughing, excessive fatigue, and nasal problems. He has been sneezing as well. He also developed an increased sensitivity and intolerance to gases, fumes, and a variety of air contaminants. He reports that his chloracne problem had been getting worse, and that he generally would look different. He reported that the special acne soap has not been helpful for him as in the past. He reported that he had not been seen at the time by his VA doctor and he had no special breathing test or chest x-ray test done. He left his home secondary to health concerns and findings of mold and moisture problems in his previous house. Since leaving this house, he felt much better. He stated that his breathing and fatigue had improved. He has less headaches.

Medications:

Trazodone.

Past Medical History:

Benign prostrate hypertrophy, exposure to Agent Orange resulting in chloracne development, posttraumatic stress syndrome, and gunshot wound. He had episodes of stomach cramps in the past. He denied any other significant abnormalities.

Past Surgical History:

"is a member of"



AMERICAN COLLEGE OF
OCCUPATIONAL AND
ENVIRONMENTAL MEDICINE

Scrotal cyst surgery in 1976.

Social History:

He is a smoker starting at age 16, 1-1½ pack per day. He denied any alcohol or significant drug history.

He reported that he now has been living in Missouri, and that he feels much better there. In his current home there are no known environmental problems.

Physical Examination:

Blood pressure: 120/90 mmHg. Respiratory rate 12/min. Temperature 97 T. Height: 5'9". Weight: 201 pounds. His peak flow was found at 440.

Examination of head, ears, nose, throat, chest, abdomen, lungs, and extremities was overall unremarkable. The nasal passage showed increased erythema and were narrow.

Laboratory Tests:

On laboratory examination, he showed no reaction to specific IgE allergens; however, he had a marked reaction indicating significant organic dust exposure including to a variety of tested fungi, i.e., *Micropolyspora faeni*, *Aspergillus fumigatus*, *Aureobasidium pullulans*, *Penicillium notatum*, and *Trichoderma viride*. He also had elevated IgG and IgA response to *Stachybotrys chartarum*. These tests are used as exposure markers and do not necessarily correspond with disease activity.

Pulmonary function test from September 12, 2002 showed that he had overall normal lung function. Chest x-ray was negative.

Immunological test which included IgG subclasses and lymphocyte enumeration test and function test showed a slightly lower than normal absolute CD3 or matured T-lymphocyte cell count with 1462, normal 1507-1953. The remainder of the testing was normal. These findings are non-specific, but typical after intense fungal exposure.

I reviewed medical records provided to me by various providers. These records did not produce any additional information. He has been diagnosed in the past with prostatitis, hemorrhoids, stable COPD, and prostatitis problems.

The environmental investigation and report by Mr. R. Pfromm indicated the presence of moisture related fungi and defects inside the house, in particular in the basement. Fungi included species of *Aspergillus*, *Penicillium* and *Stachybotrys*, that were higher inside the house than outside (control). Photos were also provided confirming visible contamination.

Jack P. Marrone

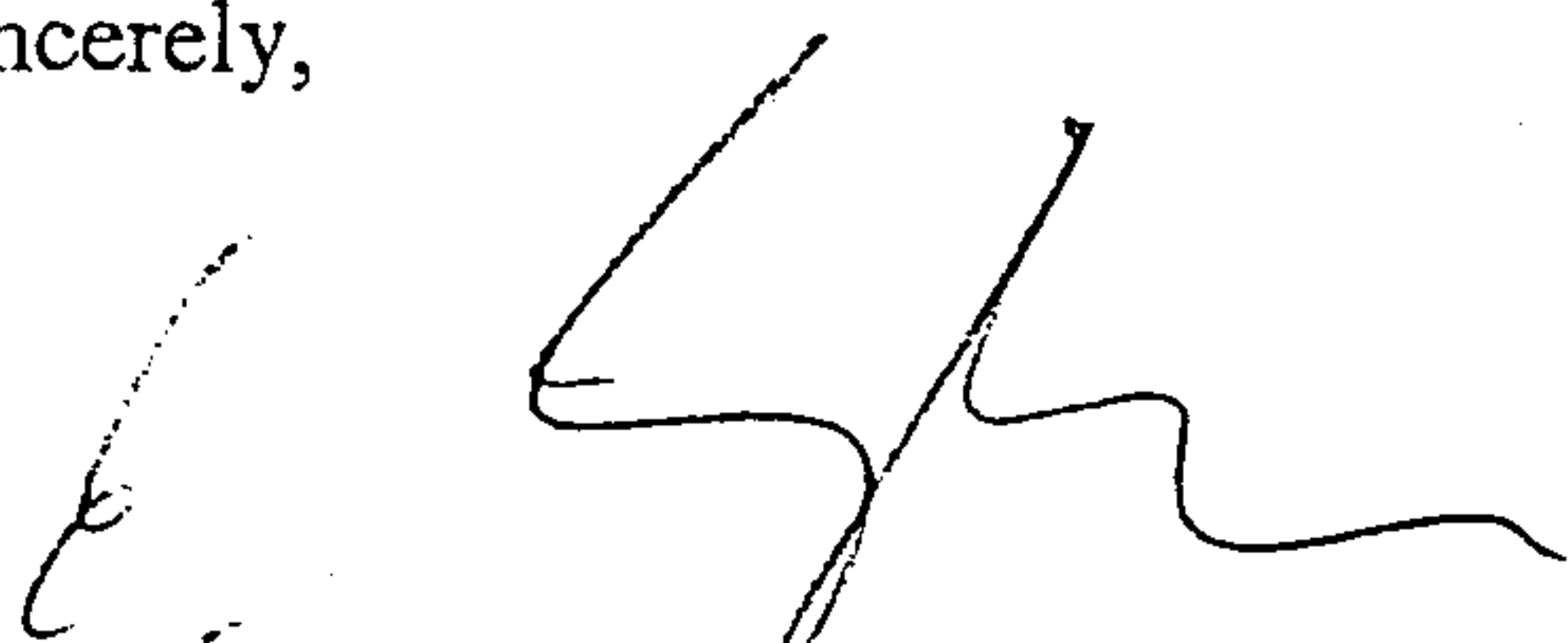
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October 21, 2002

Conclusion:

Based on recent findings, I conclude that Mr. Marrone had a respiratory reaction after intense exposure to mold and mildew in his home, which was probably also aggravated by doing some repair and clean-up work in the moldy house. He has been diagnosed in addition to his previous medical conditions with upper and lower airway inflammation and irritation effects (Rhinosinusitis, bronchitis) and mold allergy. With a reasonable degree of medical certainty I believe this was the result of the exposure in the described contaminated house. He has been advised that in the future he should avoid any of these problems since he has clearly been sensitized. Provided that he has no further exposure to the fungi, he should be reasonably well.

Sincerely,

A handwritten signature in black ink, appearing to read 'E. Johanning', with a stylized, flowing script.

Eckardt Johanning, M.D., MSc.
Diplomate of American Board of Preventive Medicine
(Occupational and Environmental Medicine)
Diplomate of American Board of Family Medicine

EXHIBIT “R”

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Offices:
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October 21, 2002

RE: Karen A. Marrone
11673 Highway PT
Dixon, MO 65459
Date of Birth 12/22/56

I reviewed again the visit of Karen Marrone from January 17, 2002. She came accompanied by her husband and daughter Vida, who also were examined that day. This is a summary of the findings. I reviewed all provided outside medical reports and environmental findings, including the Advanced Applied Science report from October, 15, 2000.

Mrs. Marrone, age 45 years, has a known service related disability since 1976. She has been previously diagnosed with multiple sclerosis in 1977. She reported that after moving into the house on 354 Timber Rd, Mount Gretna, Pa, she developed a variety of problems including shortness of breath, chest tightness, coughing, excessive fatigue, and nasal problems, stomach cramps. She had been diagnosed by her VA physician Dr. DaCosta with sinusitis and bronchitis. She also consulted an ENT specialist who reportedly recommended surgery.

She and the rest of the family left this home October 14, 2001 secondary to health concerns and findings of mold and moisture problems in this house. Since leaving this house, she also felt much better.

Medications:

Albuterol, Ibuprofen, Baclofen, Clonazepam

Past Medical History:

Rubella 1972, MS 1977, PUD, reflux, esophagitis, rhinosinusitis since early 70s, PTSD in 80s. Allergy to penicillin.

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Past Surgical History:

Gallbladder surgery 5/2000, hernia repair, cyst removal, laparoscopy.

Social History:

She is a smoker starting at age 15, 1-2 packs per day. She denied any alcohol or significant drug history.

She reported that she now living with her family in Missouri, and that she feels much better there. In this current home there are no known environmental problems.

Physical Examination:

Blood pressure: 120/90 mmHg. Respiratory rate 12/min. Temperature 99.8 T. Height: 5'5". Weight: 131 pounds. Her peak flow was 400 ml. She was coughing during the exam.

Examination of head, ears, nose, throat, chest, abdomen, lungs, and extremities was overall unremarkable. She had problems with line walking and imbalance.

Laboratory Tests:

No reaction to specific IgE and IgG fungal allergens.

Pulmonary function test was not done. Chest x-ray was negative.

Immunological test which included IgG subclasses and lymphocyte enumeration test and function test showed a higher than normal CD4/CD8 ratio and B-lymphocyte cell counts/percentage. The remainder of the testing was normal. These findings are non-specific, but typical after intense fungal exposure.

I reviewed medical records provided to me by various providers. These records did not produce any additional information.

The environmental investigation and report by Mr. R. Pfromm indicated the presence of moisture related fungi and defects inside the house, in particular in the basement. Fungi included species of *Aspergillus*, *Penicillium* and *Stachybotrys*, that were higher inside the house than outside (control). Photos were also provided confirming visible contamination.

Conclusion:

Based on recent findings, I conclude that Mrs. Marrone had an respiratory reaction after intense exposure to mold and mildew in her previous home. She has been diagnosed in addition to her previous medical conditions with upper and lower airway inflammation and irritation effects (Rhinosinusitis, bronchitis). With a reasonable degree of medical

Karen A. Marrone

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October 21, 2002

certainly I believe these were the results of the exposure in the described contaminated house. She has been advised that in the future she should avoid any of these moldy indoor exposures and stop smoking. Provided that she has no further exposure to the fungi, she should be reasonably well related to this condition.

Sincerely,

A handwritten signature in black ink, appearing to read 'E. Johanning', with a stylized flourish at the end.

Eckardt Johanning, M.D., MSc.
Diplomate of American Board of Preventive Medicine
(Occupational and Environmental Medicine)
Diplomate of American Board of Family Medicine

EXHIBIT “S”

Eckardt Johanning, M.D., M.Sc.

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October 21, 2002

RE: Matthew Marrone
11673 Highway PT
Dixon, MO 65459
Date of Birth 7/29/82

I reviewed again the visit of Matthew Marrone from January 17, 2002. This is a summary of the findings. I reviewed also the environmental findings, including the Advanced Applied Science report from October, 15, 2000.

Matthew Marrone, age 19, is a biology undergraduate student with no prior significant medical history. He reported that after moving into the house on 354 Timber Rd, Mount Gretna, Pa, in August of 1999 he developed shortness of breath, chest tightness, eye irritation, skin lesions under his axillae, excessive fatigue, nasal problems and significant memory loss. After leaving the house he had some improvement. At the time of the visit he was particularly bothered by joint pain in knees, memory problems and fatigue.

Medications:

None.

Past Medical History:

Benign. He denied any other significant abnormalities.

Past Surgical History:

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ENVIRONMENTAL MEDICINE

Matthew Marrone

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October 21, 2002

Social History:

He denied any smoking, alcohol or drug abuse history.

Physical Examination:

Blood pressure: 110/70 mmHg. Respiratory rate 12/min. Temperature normal Height: 5'10". Weight: 163 pounds. His peak flow was found at 450ml.

Examination of head, ears, nose, throat, chest, abdomen, lungs, and extremities was overall unremarkable.

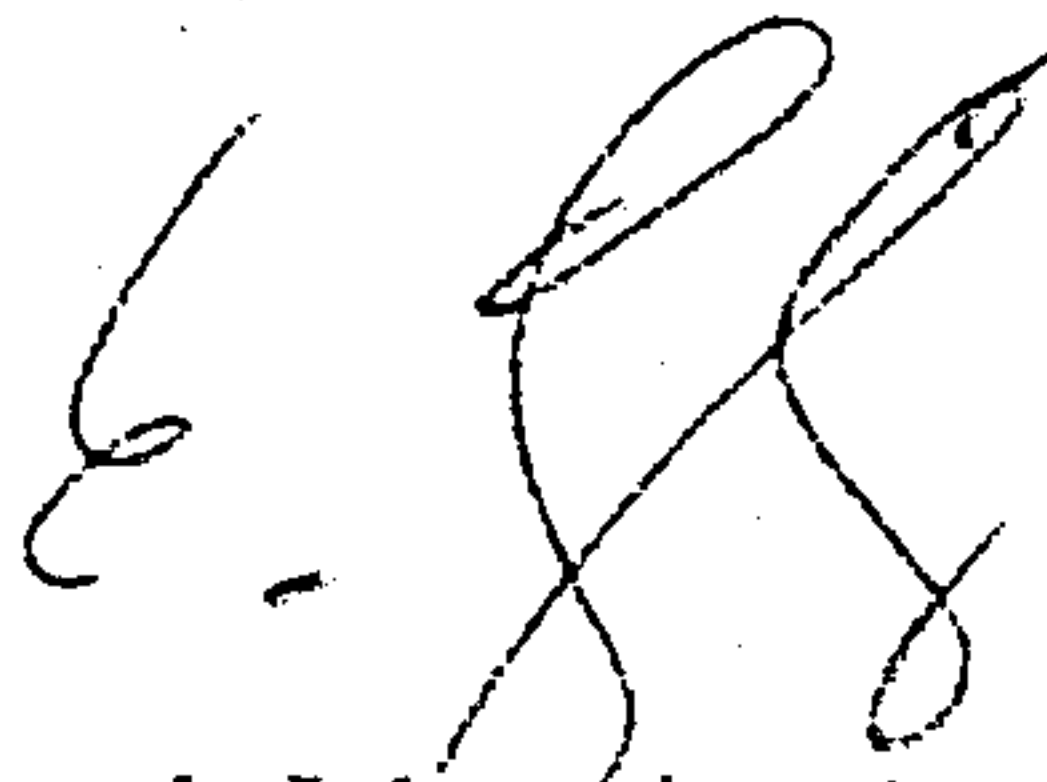
Environmental Exposure:

The environmental investigation and report by Mr. R. Pfromm indicated the presence of moisture related fungi and defects inside the house, in particular in the basement. Fungi included species of *Aspergillus*, *Penicillium* and *Stachybotrys*, that were higher inside the house than outside (control). Photos were also provided confirming visible contamination.

Conclusion:

Mr. Matthew Marrone had a variety of health complaints including respiratory reactions that are in time and place associated with exposure to mold and mildew in his previous home. He has been advised that in the future he should avoid any of these fungal indoor exposures and related problems. He has been discharged for care and follow up by his local physicians. Provided that he has no further exposure to the fungi, he should be reasonably well.

Sincerely,



Eckardt Johanning, M.D., MSc.
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Diplomate of American Board of Family Medicine

EXHIBIT “T”

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October 21, 2002

RE: Vida A. Marrone
11673 Highway PT
Dixon, MO 65459
Date of Birth 5/5/84

I reviewed again the visit of Ms. Vida A. Marrone from January 17, 2002. She came accompanied by her parents, who also were examined that day. This is a summary of the findings. I reviewed all provided outside medical reports and environmental findings, including the Advanced Applied Science report from October, 15, 2000.

Ms. Vida Marrone, age 17 years, is a student who works part time as a waitress. She reported that after moving into the house on 354 Timber Rd, Mount Gretna, Pa, she developed a variety of problems including coughing, sore throat, fatigue, skin irritation, headaches and nasal problems. Away from the house (such as her friends' houses) she generally would feel much better. She had been diagnosed by an emergency room doctor with sinusitis and bronchitis.

She left with her family the house on October 14, 2001 secondary to health concerns and findings of mold and moisture problems. Since leaving this house, she also felt much better.

Medications:

None.

Past Medical History:

MVA 2/01 related low back pain.

Past Surgical History:

None

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